

**STATE HAZARDOUS AIR POLLUTANT
EMISSIONS REPORT**

FOR

**IRVING OIL TERMINALS, INC.
SEARSPORT TERMIMAL**

**AUGUST 2001
JN: 2897**

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EMISSIONS REPORT**

FOR

**IRVING OIL TERMINALS, INC.
SEARSPOUT TERMINAL**

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ENGINEERS • SURVEYORS

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August 16, 2001

Mr. Drake Bell
Irving Oil Terminals, Inc.
700 Main Avenue
P.O. Box 401
Bangor, ME 04401

Re: Searsport Air Emissions

Dear Drake:

As you requested we have completed the State Hazardous Air Pollutant Emissions Report Forms and an analysis of fugitive emissions associated with the operations at the Searsport facility. The emissions information has been compiled for the full calendar year 2000. The 2000 emission calculations were based on the throughput, loading and unloading, ballasting operations by Irving, equipment (i.e. fittings, pumps, and valves), and tank information which was given to us. The protocols followed are mandated by the requirement to determine whether the facilities emit hazardous air pollutants according to the requirements of the Maine State Law MRSA 38 § 585-C and DEP Regulations 06-096 CMR Chapter 137. We will be submitting the State Emissions Report Forms to the DEP. A copy of the cover letter that will be submitted with your State Emissions Report Forms is included in Appendix D.

This air emissions inventory confirms that your Searsport facility continues to qualify as a Synthetic Minor Source under DEP Chapter 115. The data shows that the facility has not exceeded the emission limits of 10 tons per year of a listed hazardous air pollutant or 25 tons per year of a combination of listed pollutants. Because Maine is part of the Northeast Ozone Transport Region, there is also a requirement that a source emit less than 50 tons per year of total Volatile Organic Compounds (VOCs), instead of the usual threshold of 100 tons per year. The Searsport facility emits less than 50 tons per year of VOC contaminants.

In continuing your status as a Synthetic Minor Source, Irving Oil Terminals, Inc. has accepted a federally enforceable emissions cap. This was done by limiting the amount of product throughput at the facility and maintaining the emission controls already in place. These include internal floating roofs in certain tanks used for gasoline and jet kerosene, carbon adsorption recovery of tank truck loading vapors and submerged loading vapor balance service of an estimated 82% of your No.2/diesel fuel tank truck loading, 26% of your Jet/Kero Fuel tank truck loading and 100% of your gasoline tank truck loading.

Mr. Drake Bell
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The air emissions inventory is a review of all the potential sources of emissions at the facilities and an estimation for each source of the total emissions of volatile organic compounds (VOCs) and the emissions of individual hazardous air pollutants which are components of the total VOC. The methods are described in the EPA documents *AP-42 Emission Factors* (updated annually), *Protocol for Equipment Leak Emission Estimates* (EPA-453/R-93-026, June, 1993), *New Equipment Leak Emission Factors for Petroleum Refineries, Gasoline Marketing, and Oil and Gas Production Operations*, February, 1995 and *TANKS version 4.09, Storage Tanks Emissions Calculations Software*, January 10, 2001.

Appendix A contains the calculations for air emissions from tank truck loading, ballasting and equipment leak emissions from fittings, connectors, pumps, valves and compressors. Tank truck loading losses were calculated based on the proposed changes to AP-42 Section 5.2. The existing text of AP-42 suggests 90% collection (10% leakage) be assumed for trucks passing an annual leak test. The changes replace the 90% collection efficiency assumption with two other levels of collection (99.2% and 98.7%), in accordance with the analysis done for EPA's promulgated MACT standard for the Gasoline Distribution Industry. The 99.2% collection efficiency is suggested for trucks meeting a 1 inch water column decay test (the promulgated MACT standard), and the 98.7% is suggested for trucks meeting a 3 inch water column decay test (the existing NSPS test). We have chosen the 98.7% collection efficiency as most appropriate for the trucks now using the facility, all of which pass the 3 inch water column decay test. Staying in compliance will not require eliminating trucks which do not pass the 1 inch standard.

Appendix B contains a summary of the HAP emissions loss estimates from the major storage tanks at the facility. The facility has a combination of vertical fixed roof storage tanks for diesel/no. 2 and no. 6 fuel and internal floating roof tanks for gasoline and jet/kerosene. Air emissions losses from the fixed roof tanks are the sum of standing storage losses and working losses. Emissions losses from internal floating roof tanks are the sum of rim seal losses, withdrawal losses, deck fitting losses and deck seam losses.

Since it is necessary to estimate the individual annual emission rate for each HAP component, the total VOC losses are estimated based on the known physical properties of the mixture (e.g. diesel/no. 2 fuel) and the individual component losses are determined by multiplying the total loss by the weight fraction of the desired component. Appendix B provides a detailed report of these tank losses and HAP speciation calculations along with the input information. The calculations were performed using the EPA TANKS Version 4.09 software (rev. January 2001), which is based on the methods and equations described in AP-42. Typical vapor profiles developed by the EPA and the American Petroleum Institute were used as input data to calculate the individual HAP component losses.

Appendix C contains Air Emissions Summary tables which provide a summary of all the individual VOC and HAP emission losses determined by the inventory. Appendix C also

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contains a copy of the State Emissions Report Forms which are based on the emissions summaries. The highest individual HAP emission (MTBE) is estimated to be 4,632 lbs/year or 2.32 tons/year. The total HAP emissions for the Searsport facility are estimated to be 6,044 lbs/year or 3.02 tons/year. These are well below the thresholds which define major sources of HAPs as emissions of 10 tons/year for an individual HAP or 25 tons/year for total HAPs. The total VOCs are 54,570 lbs/year or 27.29 tons per year which is well below the major limit for VOCs of 50 tons/year.

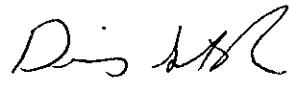
In addition to an emission estimate, the State Emission Report forms also require an estimate of the maximum total inventory of the HAP compounds at any given time and the amount of the chemical used annually. This information is included in Appendix C on the Emission Report Forms. The maximum total inventory of each reportable chemical is typically determined using the most conservative of assumptions. It was assumed that all tanks were at maximum volume. The tank capacity was then multiplied by the density of the material to get the mass (in pounds) for the fuel in the tank. Using the liquid mass fraction of each HAP compound in the fuel, a maximum amount of that chemical could be determined. This calculation was performed on all tanks to obtain a facility total. This is a conservative method of analysis since the maximum inventory volume in each tank did not actually occur on the same day.

This method leads to unrealistically high estimates to the maximum amount of a particular chemical on-site at any time but does have the advantage that it is not likely to change from year to year. To get an actual and lesser maximum capacity for each HAP compound would require an inventory breakdown for each tank and HAP compound on a daily basis for actual tank volumes. This method was not considered a prudent exercise.

The amount of chemical used is a little more straightforward calculation. This was calculated in a similar fashion to the maximum total inventory discussed above but using total annual throughput instead of maximum tank capacity.

We are pleased to have assisted you in preparing the response to the EPA/DEP request for air emissions information. If you have any questions please call.

Sincerely,
CES Inc.


Denis St. Peter, P.E.
Project Engineer

DSP/gdr
Enc.

APPENDIX A

2000

**TANK TRUCK LOADING, BALLASTING,
AND EQUIPMENT LEAK EMISSION CALCULATIONS**

Irving Oil Terminals, Inc.
2000 Loading Loss Emissions Calculations

Fuel Type	Loading Type	Percent of Thruput Loading Type is Used (%)	Saturation Factor (S)	True Vapor Pressure of Liquid Loaded (psia)	Molecular Weight of Vapors (lb/mole)	Average Temperature of Bulk Liquid (°R)	Collection Efficiency	Vapor Recovery Unit Efficiency	Tank Truck Loading Losses (lb/100gal)	Thruput (gal/hr)	Total Fuel Loading (lb/hr)
Gasoline	Submerged Dedicated Vapor Balance	100	1	4.59	64.67	512.4	0.887	0.9991	0.168	78091318	851058
KeroJet	Submerged Dedicated Vapor Balance	26.04	1	0.006875	130	512.4	0.887	0.9991	0.006	8600807	0.66
KeroJet	Sohi Loading (Dedicated Normal) Service	73.96	1.45	0.006875	130	512.4	0.887	0	0.031	8600807	134.83
No. 2/Diesel	Submerged Dedicated Vapor Balance	82.21	1	0.005283	130	512.4	0.887	0.9991	0.006	84012742	16.02
No. 2/Diesel	Sohi Loading (Dedicated Normal) Service	17.78	1.45	0.005283	130	512.4	0.887	0	0.024	84012742	361.93
No. 6	Span Loading (Dedicated Normal) Service	100	1.45	0.0000327	190	512.4	0.887	0	0.006	49943406	10.84

The estimation method from AP-42 section 5.2.2.1 was used to determine tank truck loading losses for the year 2000.

Vapor Mass Fraction of HAP per Fuel Type*

Fuel	Gasoline	Jet/Kero	No. 6	No. 2/Diesel	Totals (lb/hr)
Benzene	0.0051	0.0070	0.0056	0.0021	-
Ethybenzene	0.0004	0.0204	0.0008	0.0031	-
n-Hexane	0.0047	0.0144	0.0000	0.0004	-
Cumene	0.0001	0.0000	0.0000	0.0000	-
Methyl-tert-butyl-ether (MTBE)	0.0951	0.0000	0.0000	0.0000	-
Toluene	0.0055	0.0653	0.0049	0.0235	-
Xylyne (mixed isomers)	0.0016	0.0014	0.0000	0.0579	-
Xylyne (o)	0.0000	0.0000	0.0015	0.0000	-

2000 Hazardous Air Pollutant Tank Truck Loading Losses

Benzene	43.02	1.37	0.08	0.79	45.24
Ethybenzene	3.17	3.98	0.01	1.18	8.34
n-Hexane	38.75	2.81	0.90	0.16	42.73
Cumene	0.58	0.00	0.00	0.00	0.58
Methyl-tert-butyl-ether (MTBE)	809.74	0.00	0.00	0.00	809.74
Toluene	46.73	12.75	0.05	8.89	63.44
Xylyne (mixed isomers)	13.43	8.68	0.00	21.89	43.41
Xylyne (o)	0.00	0.00	0.02	0.00	0.02

*Vapor Mass Fractions are averages based on 2000 operations

$$L_i = \frac{12.46 \times (SPM/T) \times (1 - eff/100)}{M} \cdot P \cdot \frac{1}{L} \cdot \frac{1}{N}$$

Where:

- L_i = Loading Loss, pounds per 1000 gallons (lb/100 gal) of liquid loaded
- SPM = Saturation factor (AP-42 Table 5.2-1)
- T = Temperature of bulk liquid loaded (°R)
- eff = Efficiency of vapor control unit (Collection Efficiency x Vapor Recovery Unit Efficiency)
- P = True vapor pressure of liquid loaded, pounds per square inch absolute (psi)
- L = Molecular weight of vapors, pounds per pound-mole (lb/lb-mole)
- N = Molecular weight of HAP per Fuel Type by the 2000 Hazardous Air Pollutant Tank Truck Loading Losses were then calculated by multiplying the Vapor Mass Fraction of HAP per Fuel Type by the

Irving Oil Terminals, Inc.
2000 Ballasting Loss Emissions Calculations

Fuel Type	True Vapor Pressure of Liquid Loaded (psia)	Arrival Cargo True Ullage (ft)*	Amount of Ballast Water per Trip (gal)*	Number of Trips per Year	Ballasting Losses (lb/1000gal of ballast water)	Emission Rate (lb/yr)
Gasoline	4.99	4	25000	2	1.5076	75.38
Kero/Jet	0.006675	4	25000	0	0.3116	0.00
No. 2/Diesel	0.005283	4	25000	3	0.3113	23.35
No. 6	0.0000327	4	25000	0	0.3100	0.00

* Ullage and ballast water values have been provided by Irving Oil Corp.

Vapor Mass Fraction of HAP per Fuel Type*				
	Gasoline	Jet/Kero	No. 6	No. 2/Diesel
Benzene	0.0051	0.0070	0.0056	0.0021
Ethylbenzene	0.0004	0.0204	0.0008	0.0031
n-Hexane	0.0047	0.0144	0.0000	0.0004
Cumene	0.0001	0.0000	0.0000	0.0000
Methyl-tert-butyl-ether (MTBE)	0.0951	0.0000	0.0000	0.0000
Toluene	0.0055	0.0653	0.0049	0.0235
Xylene (mixed isomers)	0.0016	0.0414	0.0000	0.0579
Xylene (o)	0.0000	0.0000	0.0015	0.0000

2000 Hazardous Air Pollutant Ballasting Losses					
Benzene	0.38	0.00	0.00	0.05	0.43
Ethylbenzene	0.03	0.00	0.00	0.07	0.10
n-Hexane	0.35	0.00	0.00	0.01	0.36
Cumene	0.01	0.00	0.00	0.00	0.01
Methyl-tert-butyl-ether (MTBE)	7.17	0.00	0.00	0.00	7.17
Toluene	0.41	0.00	0.00	0.55	0.96
Xylene (mixed isomers)	0.12	0.00	0.00	1.35	1.47
Xylene (o)	0.00	0.00	0.00	0.00	0.00

* Vapor Mass Fractions are averages based on 2000 operations

The estimation method from AP-42 section 5.2.2.1.2 was used to determine ballasting losses for the year 2000.

The following equation was used to determine the losses:

$$L_B = 0.31 + 0.20 \times P + 0.01 \times P \times U_A$$

Where:

L_B = ballasting emission factor (lb/1000 gal of ballast water)

P = true vapor pressure (psia)

U_A = arrival cargo true ullage, before dockside discharge measured from the deck (ft)

The ballasting emission factor was then multiplied by *Amount of Ballast Water per Trip* and the *Number of Trips per Year* to obtain the *Emission Rate*.

The *Emission Rate* was then multiplied by *Vapor Mass Fraction of HAP per Fuel Type* to obtain the *2000 Hazardous Air Pollutant Ballasting Losses*.

APPENDIX B

2000

**SUMMARY OF HAZARDOUS AIR POLLUTANT FROM TANKS
AND TANKS 4.09 REPORT**

Summary of 2000 Hazardous Air Pollutant Emissions from Tanks (lbs)

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification	1183002001.tn Searsport Maine Irving Oil Corp Internal Floating Roof Tank 2000 Operations			Quantity
Tank Dimensions	Diameter (ft): Volume (gallons): Turnovers: Self Sup. Roof? (y/n): No. of Columns: Eff. Col. Diam. (ft):	162.00 7,350,000.00 8.14 N 16.00 1.00		
Paint Characteristics	Internal Shell Condition: Shell Color/Shade: Shell Condition: Roof Color/Shade: Roof Condition:	Light Rust White/White Good White/White Good		
Rim-Seal System	Primary Seal: Secondary Seal:	Vapor-mounted None		
Deck Characteristics	Deck Fitting Category: Deck Type: Construction: Deck Seam: Deck Seam Len. (ft):	Detail Bolted Panel Panel: 5 x 12 Ft 5,771.35		
Deck Fitting/Status	Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed Automatic Gauge Float Well/Bolted Cover, Gasketed Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask. Sample Pipe or Well (24-in. Diam.)/Slidited Pipe-Sliding Cover, Gask.			

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temp. (deg F) Avg.	Daily Liquid Surf. Temp. (deg F) Min.	Daily Liquid Surf. Temp. (deg F) Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Min.	Vapor Pressures (psia) Avg.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Jan	35.40	31.29	39.51	45.40	4.2890	N/A	N/A	62.0000	0.0250	0.0001	92.00 Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene					0.5861	N/A	N/A	78.1100	0.0180	0.0035	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane					0.5874	N/A	N/A	84.1600	0.0024	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene					0.6436	N/A	N/A	108.1700	0.0140	0.0002	108.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)					0.9706	N/A	N/A	88.1700	0.0100	0.0034	88.17	Option 2: A=6.878, B=1171.17, C=224.41
Isooctane					0.2130	N/A	N/A	114.2200	0.0400	0.0299	114.22	Option 1: VP40 = .213
Isopropyl benzene					0.0192	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=8.963, B=1480.793, C=207.78
Methyl-tert-butyl ether (MTBE)					1.9200	N/A	N/A	88.1500	0.1200	0.0797	88.15	Option 1: VP40 = 1.92
Toluene					6.1464	N/A	N/A	92.1300	0.0700	0.0335	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components					6.2340	N/A	N/A	60.1100	0.6256	0.9052	89.80	
Xylyne (-m)					0.0360	N/A	N/A	106.7700	0.0700	0.0039	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Feb	36.87	32.28	41.46	45.40	4.4203	N/A	N/A	62.0000	0.0250	0.0001	92.00 Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene					0.5926	N/A	N/A	78.1100	0.0180	0.0036	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane					0.6247	N/A	N/A	84.1600	0.0024	0.0005	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene					0.0462	N/A	N/A	106.1700	0.0140	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)					1.0131	N/A	N/A	88.1700	0.0100	0.0034	88.17	Option 2: A=6.878, B=1171.17, C=224.41
Isooctane					0.2130	N/A	N/A	114.2200	0.0400	0.0029	114.22	Option 1: VP40 = .213
Isopropyl benzene					0.0204	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=8.963, B=1480.793, C=207.78
Methyl-tert-butyl ether (MTBE)					1.9200	N/A	N/A	88.1500	0.1200	0.0773	88.15	Option 1: VP40 = 1.92
Toluene					0.1541	N/A	N/A	92.1300	0.0700	0.0036	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Xylyne (-m)					6.4854	N/A	N/A	60.1589	0.6256	0.9075	89.80	
Unidentified Components					0.0382	N/A	N/A	108.1700	0.0700	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13)	Mar	41.56	37.07	46.06	45.40	4.8614	N/A	N/A	62.0000	0.0250	0.0001	92.00 Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene					0.0994	N/A	N/A	120.1900	0.0250	0.0001	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Benzene					0.6843	N/A	N/A	78.1100	0.0180	0.0038	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Cyclohexane					0.7189	N/A	N/A	84.1600	0.0024	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene					0.1554	N/A	N/A	108.1700	0.0140	0.0002	88.17	Option 2: A=6.878, B=1171.17, C=224.41
Hexane (-n)					1.1593	N/A	N/A	88.1700	0.0100	0.0035	114.22	Option 1: VP40 = .213
Isooctane					0.2402	N/A	N/A	114.2200	0.0400	0.0029	120.20	Option 2: A=8.963, B=1480.793, C=207.78
Isopropyl benzene					0.0248	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 1: VP40 = 1.92
Methyl-tert-butyl ether (MTBE)					2.0106	N/A	N/A	88.1500	0.1200	0.0736	88.15	Option 2: A=6.954, B=1344.8, C=219.48
Toluene					0.1811	N/A	N/A	92.1300	0.0700	0.0039	92.13	
Unidentified Components					7.0833	N/A	N/A	60.2194	0.6256	0.9104	89.80	Option 2: A=7.009, B=1462.266, C=215.11
Xylyne (-m)					0.0459	N/A	N/A	108.1700	0.0700	0.0010	106.17	
Gasoline (RVP 9)	Apr	46.44	41.38	51.49	45.40	3.5056	N/A	N/A	67.0000	0.0250	0.0001	92.00 Option 4: RVP=9, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene					0.0116	N/A	N/A	120.1900	0.0250	0.0001	120.19	Option 2: A=6.905, B=1211.033, C=220.79
Benzene					0.7918	N/A	N/A	78.1100	0.0180	0.0056	78.11	Option 2: A=6.841, B=1201.53, C=222.65
Cyclohexane					0.8289	N/A	N/A	84.1600	0.0024	0.0008	84.16	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene					0.0566	N/A	N/A	108.1700	0.0140	0.0004	106.17	Option 2: A=6.878, B=1171.17, C=224.41
Hexane (-n)					1.3292	N/A	N/A	86.1700	0.0100	0.0052	88.17	Option 2: A=6.954, B=1344.8, C=219.48
Isooctane					0.3250	N/A	N/A	114.2200	0.0400	0.0051	114.22	Option 2: A=8.963, B=1480.793, C=207.78
Methyl-tert-butyl ether (MTBE)					0.0302	N/A	N/A	120.2000	0.0050	0.0001	120.20	Option 1: VP40 = 1.92
Unidentified Components					2.2933	N/A	N/A	88.1500	0.1200	0.0178	88.15	Option 1: VP40 = 1.92 VP50 = 2.5
Xylyne (-m)												
Gasoline (RVP 9)												

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank - (Continued)

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank - (Continued)

TANKS 4.0

Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Xylyene (cm) Option 2: A=7.009, B=1462.266, C=215.11

Xylyene (cm)

0.0395

N/A

106.1700

0.0700

0.0009

106.17

11

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December	
Rim Seal Losses (lb):	482,9182	500,5831	561,5883	412,4821	462,4313	511,1689	544,6908	533,7450	484,6987	653,2918	584,9240	510,9336	
6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	6,7000	
Seal Factor A (lb-moleft ² yr):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	
Seal Factor B (lb-moleft ² yr):	0.0861	0.0861	0.1001	0.0681	0.0763	0.0763	0.0889	0.0881	0.0881	0.0881	0.0881	0.0881	
Value of Vapor Pressure Function:													
Vapor Pressure at Daily Average Liquid													
Tank Diameter (ft):	4,2890	4,4203	4,8614	3,5056	3,8702	4,2148	4,4458	4,3799	4,0290	5,5239	5,0253	4,4964	
162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	
Surface Temperature (psia):	62,0000	62,0000	62,0000	67,0000	67,0000	67,0000	67,0000	67,0000	67,0000	62,0000	62,0000	62,0000	
Vapor Molecular Weight (lb/lb-mole):	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	
Product Factor:													
Withdrawal Losses (lb):	4,7756	9,6891	8,4343	3,6333	4,2884	5,3440	5,1858	5,7199	6,3244	8,6533	7,1504	7,2912	
Number of Columns:	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	16,0000	
Effective Column Diameter (ft):	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	
Net Throughput (gal/me):	3,733,301,000	7,582,272,000	6,583,543,000	2,840,356,000	3,352,439,000	4,177,862,000	4,053,986,000	4,471,509,000	4,944,131,000	6,784,692,000	5,589,840,000	5,692,085,000	0
Shell Clinging Factor (lb/l'000 sqft):	0	0	0	0	0	0	0	0	0	0	0	0	
Average Organic Liquid Density (lb/gal):	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	
Tank Diameter (ft):	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	5,6000	
Deck Fitting Losses (lb):	36,4836	37,8181	42,4270	31,1623	34,9358	38,6180	41,1504	40,3235	36,6182	49,7328	44,8601	38,6001	
Value of Vapor Pressure Function:	0,0661	0,0893	0,1001	0,0681	0,0763	0,0843	0,0899	0,0881	0,0800	0,1174	0,1043	0,0918	
Vapor Molecular Weight (lb/l-mole):	62,0000	62,0000	62,0000	67,0000	67,0000	67,0000	67,0000	67,0000	67,0000	62,0000	62,0000	62,0000	
Product Factor:	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	
Tat. Roof Fitting Loss Fact. (lb/l-mole/yr):	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	82,0000	
Deck Seam Losses (lb):	457,7199	474,4631	532,2851	380,8692	436,3021	484,4976	516,2693	505,8947	459,4085	623,9427	554,4032	484,2735	
Deck Seam Length (ft):	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	5,771,3522	
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	
Deck Seam Length Factor(ft/sqft):	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	0,2800	
Tank Diameter (ft):	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	162,0000	
Vapor Molecular Weight (lb/l-mole):	62,0000	62,0000	62,0000	67,0000	67,0000	67,0000	67,0000	67,0000	67,0000	62,0000	62,0000	62,0000	
Product Factor:	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	
Deck Fitting Status:													
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed													
Automatic Gauge float Well/Bolted Cover, Gasketed													
Column Well (24-in. Diam.)/Built-Up Cap, Sliding Cover, Gask.													
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.													
Total Losses (lb):	981,8973	1,022,5635	1,144,7347	638,2369	939,5577	1,039,6294	1,107,2963	1,085,6830	987,0508	1,340,6205	1,190,6675	1,041,0884	
Quantity													
KFa (lb-mole/yr)													
KFB (lb-mole/yr mph/yr)													
Deck Fitting Loss Factors													
Deck Fitting Status:													
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed													
Automatic Gauge float Well/Bolted Cover, Gasketed													
Column Well (24-in. Diam.)/Built-Up Cap, Sliding Cover, Gask.													
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.													
Losses (lb):													

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Components					
Gasoline (RVP 9)	2,949.22	30.50	222.81	2,795.33	5,997.85
1,2,4-Trimethylbenzene	0.40	0.76	0.03	0.38	1.57
Benzene	17.58	0.55	1.33	16.86	36.11
Cyclohexane	2.44	0.07	0.18	2.31	5.01
Ethylbenzene	1.22	0.43	0.09	1.15	2.89
Hexane (-n)	16.16	0.30	1.22	15.32	33.01
Isooctane	18.25	1.22	1.38	17.30	38.15
Isopropyl benzene	0.20	0.15	0.02	0.19	0.56
Methyl-tert-butyl ether (MTBE)	330.65	3.66	24.98	313.40	672.69
Toluene	18.93	2.13	1.43	17.94	40.44
Unidentified Components	2,538.33	19.08	191.77	2,405.88	5,155.05
Xylene (-m)	5.06	2.13	0.38	4.80	12.37
Gasoline (RVP 13)	3,299.24	45.99	249.25	3,127.09	6,721.57
1,2,4-Trimethylbenzene	0.23	1.15	0.02	0.22	1.62
Benzene	12.33	0.83	0.93	11.69	25.77
Cyclohexane	1.73	0.11	0.13	1.64	3.61
Ethylbenzene	0.77	0.64	0.06	0.73	2.21
Hexane (-n)	11.61	0.46	0.88	11.01	23.96
Isooctane	10.29	1.84	0.78	9.75	22.66
Isopropyl benzene	0.12	0.23	0.01	0.12	0.48
Methyl-tert-butyl ether (MTBE)	251.68	5.52	19.01	238.55	514.76
Toluene	12.67	3.22	0.96	12.01	28.85
Unidentified Components	2,984.59	28.77	226.24	2,838.34	6,087.94
Xylene (-n)	3.20	3.22	0.24	3.04	9.70
Total:	6,248.46	76.49	472.06	5,922.42	12,719.43

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Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002002
 City: Searsport
 State: Maine
 Company: Irving Oil Corp
 Type of Tank: Internal Floating Roof Tank
 Description: 2000 Operations

Tank Dimensions

Diameter (ft):	162.00
Volume (gallons):	7,350,000.00
Turnovers:	0.71
Self Sup. Roof? (y/n):	N
No. of Columns:	16.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim Seal System

Primary Seal:	Vapor-mounted
Secondary Seal:	None

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Bolted
Construction:	Panel
Deck Seam:	Panel: 5 x 12 Ft
Deck Seam Len. (ft):	5,771.35

Deck Fitting/Status

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.	1

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

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Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Max.	Min.				
Jet kerosene	Jan	36.89	32.01	41.78	46.51	0.0041	N/A	130.0000	0.0000	162.00 Option 1: VP40 = .0041
Benzene				0.5931	N/A	N/A	78.1100	0.0000	0.0072	78.11 Option 2: A=E-805, B=1211.033, C=220.79
Ethylbenzene				0.0463	N/A	N/A	106.1700	0.0013	0.0179	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.0138	N/A	N/A	86.1700	0.0001	0.0154	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.1542	N/A	N/A	92.1300	0.0013	0.0623	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0034	N/A	N/A	138.0727	0.9842	0.8611	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0382	N/A	N/A	108.1700	0.0031	0.0369	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	Feb	38.78	33.05	44.52	46.51	0.0041	N/A	130.0000	0.0000	162.00 Option 1: VP40 = .0041
Benzene				0.6288	N/A	N/A	78.1100	0.0000	0.0076	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				0.0498	N/A	N/A	106.1700	0.0013	0.0192	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.0709	N/A	N/A	86.1700	0.0001	0.0163	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.1647	N/A	N/A	92.1300	0.0013	0.0686	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0033	N/A	N/A	138.7590	0.9842	0.8515	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0412	N/A	N/A	108.1700	0.0031	0.0383	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	Mar	43.97	37.89	50.05	46.51	0.0048	N/A	130.0000	0.0000	162.00 Option 5: A=12.39, B=8933
Benzene				0.7358	N/A	N/A	78.1100	0.0000	0.0077	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				0.0607	N/A	N/A	106.1700	0.0013	0.0202	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.2408	N/A	N/A	86.1700	0.0001	0.0162	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.1965	N/A	N/A	92.1300	0.0013	0.0684	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0038	N/A	N/A	139.0593	0.9842	0.8473	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0503	N/A	N/A	108.1700	0.0031	0.0403	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	Apr	49.24	42.25	56.22	46.51	0.0057	N/A	130.0000	0.0000	162.00 Option 5: A=12.39, B=8933
Benzene				0.8598	N/A	N/A	78.1100	0.0000	0.0075	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				1.0739	N/A	N/A	106.1700	0.0013	0.0204	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.4358	N/A	N/A	86.1700	0.0001	0.0156	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.2341	N/A	N/A	92.1300	0.0013	0.0675	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0046	N/A	N/A	138.9650	0.9842	0.8473	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0613	N/A	N/A	108.1700	0.0031	0.0414	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	May	54.45	46.50	62.41	46.51	0.0068	N/A	130.0000	0.0000	162.00 Option 5: A=12.39, B=8933
Benzene				0.8693	N/A	N/A	78.1100	0.0000	0.0073	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				0.0892	N/A	N/A	106.1700	0.0013	0.0207	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.6532	N/A	N/A	86.1700	0.0001	0.0151	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.2771	N/A	N/A	92.1300	0.0013	0.0672	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0055	N/A	N/A	138.8682	0.9842	0.8479	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0742	N/A	N/A	106.1700	0.0031	0.0419	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	Jun	58.92	50.41	67.43	46.51	0.0079	N/A	130.0000	0.0000	162.00 Option 5: A=12.39, B=8933
Benzene				1.1333	N/A	N/A	78.1100	0.0000	0.0074	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				0.1045	N/A	N/A	106.1700	0.0013	0.0208	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.8602	N/A	N/A	86.1700	0.0001	0.0146	86.17 Option 2: A=E-876, B=1171.17, C=224.41
Toluene				0.3192	N/A	N/A	92.1300	0.0013	0.0686	92.13 Option 2: A=E-954, B=1344.8, C=219.48
Unidentified Components				0.0064	N/A	N/A	138.7830	0.9842	0.8485	162.55 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)				0.0370	N/A	N/A	106.1700	0.0031	0.0423	106.17 Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	Jul	61.56	53.13	70.00	46.51	0.0087	N/A	130.0000	0.0000	162.00 Option 5: A=12.39, B=8933
Benzene				1.2194	N/A	N/A	78.1100	0.0000	0.0075	78.11 Option 2: A=E-905, B=1211.033, C=220.79
Ethylbenzene				0.1146	N/A	N/A	106.1700	0.0013	0.0209	106.17 Option 2: A=E-975, B=1424.255, C=213.21
Hexane (-n)				1.9826	N/A	N/A	86.1700	0.0001	0.0143	86.17 Option 2: A=E-876, B=1171.17, C=224.41

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Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Toluene		0.3466	N/A	92.1300	0.0013	0.0663	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0070	N/A	138.7315	0.0842	0.8489	162.56	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)		0.0955	N/A	106.1700	0.0031	0.0425	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Aug	60.40	52.52	68.28	46.51	0.0083	N/A	130.0000	Option 5: A=12.39, B=8933
Jet kerosene		1.1839	N/A	78.1100	0.0000	0.0071	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Benzene		0.1101	N/A	106.1700	0.0013	0.0209	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene		1.9334	N/A	86.1700	0.0001	0.0144	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Hexane (-n)		0.3343	N/A	92.1300	0.0013	0.0664	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Toluene		0.0067	N/A	138.7542	0.0942	0.8486	162.55	Option 2: A=7.009, B=1462.286, C=215.11
Unidentified Components		0.0917	N/A	106.1700	0.0031	0.0424	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)								Option 5: A=12.39, B=8933
Sep	55.82	48.81	62.83	46.51	0.0072	N/A	130.0000	Option 2: A=6.905, B=1211.033, C=220.79
Jet kerosene		1.0387	N/A	78.1100	0.0000	0.0072	78.11	Option 2: A=6.975, B=1424.255, C=213.21
Benzene		0.0937	N/A	106.1700	0.0013	0.0207	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene		1.7143	N/A	86.1700	0.0001	0.0149	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Hexane (-n)		0.2894	N/A	92.1300	0.0013	0.0670	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Toluene		0.0057	N/A	138.8424	0.0942	0.8481	162.55	Option 2: A=7.009, B=1462.286, C=215.11
Unidentified Components		0.0779	N/A	106.1700	0.0031	0.0420	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)								Option 5: A=12.39, B=8933
Oct	49.99	44.01	55.96	46.51	0.0059	N/A	130.0000	Option 2: A=6.905, B=1211.033, C=220.79
Jet kerosene		0.3787	N/A	78.1100	0.0000	0.0075	78.11	Option 2: A=6.975, B=1424.255, C=213.21
Benzene		0.0759	N/A	106.1700	0.0013	0.0205	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene		1.4654	N/A	86.1700	0.0001	0.0155	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Hexane (-n)		0.2998	N/A	92.1300	0.0013	0.0677	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Toluene		0.0047	N/A	138.9513	0.0942	0.8474	162.55	Option 2: A=7.009, B=1462.286, C=215.11
Unidentified Components		0.0630	N/A	106.1700	0.0031	0.0414	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)								Option 5: A=12.39, B=8933
Nov	44.68	40.27	49.09	46.51	0.0049	N/A	130.0000	Option 2: A=6.905, B=1211.033, C=220.79
Jet kerosene		0.7515	N/A	78.1100	0.0000	0.0077	78.11	Option 2: A=6.975, B=1424.255, C=213.21
Benzene		0.0624	N/A	106.1700	0.0013	0.0202	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene		1.2656	N/A	86.1700	0.0001	0.0161	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Hexane (-n)		0.2012	N/A	92.1300	0.0013	0.0683	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Toluene		0.0039	N/A	139.0465	0.0942	0.8465	162.55	Option 2: A=7.009, B=1462.286, C=215.11
Unidentified Components		0.0517	N/A	106.1700	0.0031	0.0409	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)								Option 5: A=12.39, B=8933
Dec	39.03	34.72	43.33	46.51	0.0041	N/A	130.0000	Option 1: VP40 = .0041
Jet kerosene		0.6334	N/A	78.1100	0.0000	0.0077	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Benzene		0.0603	N/A	106.1700	0.0013	0.0194	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene		1.0783	N/A	86.1700	0.0001	0.0164	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Hexane (-n)		0.1660	N/A	92.1300	0.0013	0.0671	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Toluene		0.0033	N/A	138.9495	0.0942	0.8502	162.55	Option 2: A=7.009, B=1462.286, C=215.11
Unidentified Components		0.0416	N/A	106.1700	0.0031	0.0392	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (-m)								Option 5: A=12.39, B=8933

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Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	0.8207	0.8533	1.1456	1.3689	1.5896	1.7351	1.8638	1.4333	1.1754	0.9774	0.8207	
Seal Factor A (lb-mole/ft ² -yr) (mphy ⁻¹):	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	
Seal Factor B (lb-mole/ft ² -yr) (mphy ⁻¹):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	
Value of Vapor Pressure Function:	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):												
Tank Diameter (ft):												
Vapor Molecular Weight (lb/lb-mole):												
Product Factor:												
Withdrawal Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Number of Columns:	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	16.0000	
Effective Column Diameter (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Net Throughput (gal/min):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Shell Clingage Factor (lb/l'000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	
Average Organic Liquid Density (lb/gal):	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	
Tank Diameter (ft):	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	
Deck Fitting Losses (lb):	0.0620	0.0620	0.0720	0.0865	0.1034	0.1201	0.1311	0.1282	0.1083	0.0888	0.0738	
Value of Vapor Pressure Function:	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	
Deck Seam Losses (lb):	0.7778	0.7778	0.9036	1.0858	1.2975	1.5069	1.8446	1.5827	1.3855	1.1141	0.9264	
Deck Seam Length (ft):	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	5.771.3500	
Deck Seam Loss per Unit Length												
Factor (lb-mole/ft ² -yr):	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	
Deck Seam Length Factor (ft/sqft):	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	
Tank Diameter (ft):	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	

Deck Fitting Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/yr, min/m ²)	Deck Fitting Loss Factors	Losses (lb)
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2	1.60	0.00		0.0429
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00		0.0375
Column Well (24-in. Diam.)/Built-Up Col./Sliding Cover, Gasketed	1	33.00	0.00		0.4420
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe/Sliding Cover, Gasketed	1	43.00	0.00		0.5780
Total Losses (lb):	1.6805	1.9290	2.3180	2.7698	3.2168
				11.1302	2.9000
				2.3783	1.9776
					2.2544

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Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Jet Kerosene	14.51	8.35	1.10	13.75	37.71
Benzene	0.11	0.00	0.01	0.10	0.22
Ethylbenzene	0.30	0.01	0.02	0.28	0.61
Hexane (-n)	0.22	0.00	0.02	0.21	0.45
Toluene	0.97	0.01	0.07	0.92	1.97
Unidentified Components	12.32	8.30	0.93	11.68	33.23
Xylene (-m)	0.60	0.03	0.05	0.57	1.24

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Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification				Quantity
User Identification:	1183002003			
City:	Searsport			2
State:	Maine			1
Company:	Irving Oil Corp			1
Type of Tank:	Internal Floating Roof Tank			1
Description:	2000 Operations			1
Tank Dimensions				
Diameter (ft):	110.00			
Volume (gallons):	3,360,000.00			
Turnovers:	2.65			
Self Sup. Roof? (y/n):	N			
No. of Columns:	7.00			
Eff. Col. Diam. (ft):	1.00			
Paint Characteristics				
Internal Shell Condition:	Light Rust			
Shell Color/Shade:	White/White			
Shell Condition:	Good			
Roof Color/Shade:	White/White			
Roof Condition:	Good			
Rim-Seal System				
Primary Seal:	Vapor-mounted			
Secondary Seal:	None			
Deck Characteristics				
Deck Fitting Category:	Detailed			
Deck Type:	Bolted			
Construction:	Panel			
Deck Seam:	Panel: 5 x 12 Ft			
Deck Seam Len. (ft):	2,660.93			
Deck Fitting/Status				
Access Hatch (24-in. Diam.)/Bolted Cover,	Gasketed			
Automatic Gauge Float Well/Bolted Cover,	Gasketed			
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.				
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.				

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Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

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Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)			Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight Calculations	Basis for Vapor Pressure
		Avg.	Min.	Max.	Max.	Min.	Avg.	Max.	Min.	Avg.					
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Jan	35.40	31.29	39.51	45.40	42.890	N/A	N/A	62.000	0.0250	0.0001	92.00	92.00	Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56	
Benzene						0.5661	N/A	N/A	78.1100	0.0180	0.0035	78.11	84.16	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=201.53, C=222.65	
Cyclohexane						0.5974	N/A	N/A	84.1600	0.0024	0.0005	84.16	84.16	Option 2: A=6.975, B=1424.255, C=213.61	
Ethylbenzene						0.0436	N/A	N/A	106.1700	0.0140	0.0092	106.17	106.17	Option 2: A=6.841, B=1424.255, C=213.61	
Hexane (-n)						0.9706	N/A	N/A	88.1700	0.0100	0.0034	88.17	88.17	Option 2: A=6.876, B=1171.17, C=224.41	
Isooctane						0.2130	N/A	N/A	114.2200	0.0400	0.0029	114.22	114.22	Option 1: VP40 = .213 Option 2: A=6.963, B=1460.793, C=207.78	
Isopropyl benzene						0.0192	N/A	N/A	120.2000	0.0050	0.0009	120.20	120.20	Option 1: VP40 = .192 Option 2: A=6.963, B=1460.793, C=207.78	
Methyl-tert-butyl ether (MTBE)						1.9200	N/A	N/A	88.1500	0.1200	0.0797	88.15	88.15	Option 1: VP40 = .192 Option 2: A=6.954, B=1344.8, C=219.48	
Toluene						0.1464	N/A	N/A	92.1300	0.0700	0.0035	92.13	92.13	Option 1: VP40 = .192 Option 2: A=6.954, B=1344.8, C=219.48	
Unidentified Components						6.2340	N/A	N/A	80.1198	0.6536	0.9052	89.60	89.60	Option 1: VP40 = .192 Option 2: A=7.009, B=1462.266, C=215.11	
Xylene (-m)						0.0360	N/A	N/A	108.1700	0.0700	0.0008	106.17	106.17	Option 1: VP40 = .192 Option 2: A=7.009, B=1462.266, C=215.11	
Gasoline (RVP 13) 1,2,4-Triisopropylbenzene	Feb	36.87	32.28	41.45	45.40	4.4203	N/A	N/A	62.000	0.0250	0.0001	92.00	92.00	Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56	
Benzene						0.5926	N/A	N/A	78.1100	0.0180	0.0036	78.11	84.16	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=201.53, C=222.65	
Cyclohexane						0.6247	N/A	N/A	84.1600	0.0024	0.0005	84.16	84.16	Option 2: A=6.975, B=1424.255, C=213.61	
Ethylbenzene						0.0462	N/A	N/A	106.1700	0.0140	0.0100	106.17	106.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)						1.0131	N/A	N/A	86.1700	0.0100	0.0034	86.17	86.17	Option 1: VP40 = .213 Option 2: A=6.963, B=1460.793, C=207.78	
Isooctane						0.2130	N/A	N/A	114.2200	0.0400	0.0028	114.22	114.22	Option 1: VP40 = .213 Option 2: A=6.963, B=1460.793, C=207.78	
Isopropyl benzene						0.0204	N/A	N/A	120.2000	0.0050	0.0000	120.20	120.20	Option 1: VP40 = .192 Option 2: A=6.954, B=1344.8, C=219.48	
Methyl-tert-butyl ether (MTBE)						1.9200	N/A	N/A	88.1500	0.1200	0.0773	88.15	88.15	Option 1: VP40 = .192 Option 2: A=6.954, B=1344.8, C=219.48	
Toluene						0.1541	N/A	N/A	92.1300	0.0700	0.0036	92.13	92.13	Option 1: VP40 = .192 Option 2: A=6.954, B=1344.8, C=219.48	
Unidentified Components						6.4554	N/A	N/A	60.1589	0.6258	0.9075	88.60	88.60	Option 1: VP40 = .192 Option 2: A=7.009, B=1462.266, C=215.11	
Xylene (-m)						0.0382	N/A	N/A	106.1700	0.0700	0.0009	106.17	106.17	Option 1: VP40 = .192 Option 2: A=7.009, B=1462.266, C=215.11	
Gasoline (RVP 13) 1,2,4-Triisopropylbenzene	Mar	41.56	37.07	46.06	45.40	4.8614	N/A	N/A	62.000	0.0250	0.0001	92.00	92.00	Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56	
Benzene						0.6843	N/A	N/A	78.1100	0.0180	0.0038	78.11	84.16	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=201.53, C=222.65	
Cyclohexane						0.7189	N/A	N/A	84.1600	0.0024	0.0005	84.16	84.16	Option 2: A=6.975, B=1424.255, C=213.61	
Ethylbenzene						0.0554	N/A	N/A	106.1700	0.0140	0.0002	106.17	106.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)						1.1593	N/A	N/A	86.1700	0.0100	0.0035	86.17	86.17	Option 1: VP40 = .213 VPSO = .367 Option 2: A=6.963, B=1460.793, C=207.78	
Isooctane						0.2402	N/A	N/A	114.2200	0.0400	0.0028	114.22	114.22	Option 1: VP40 = .213 VPSO = .367 Option 2: A=6.963, B=1460.793, C=207.78	
Isopropyl benzene						0.0248	N/A	N/A	120.2000	0.0050	0.0000	120.20	120.20	Option 1: VP40 = .192 VPSO = .25 Option 2: A=6.954, B=1344.8, C=219.48	
Methyl-tert-butyl ether (MTBE)						2.0106	N/A	N/A	88.1500	0.1200	0.0736	88.15	88.15	Option 1: VP40 = .192 VPSO = .25 Option 2: A=6.954, B=1344.8, C=219.48	
Toluene						0.1811	N/A	N/A	92.1300	0.0700	0.0039	92.13	92.13	Option 1: VP40 = .192 VPSO = .367 Option 2: A=6.954, B=1344.8, C=219.48	
Unidentified Components						7.0533	N/A	N/A	60.2194	0.6256	0.9104	89.60	89.60	Option 1: VP40 = .192 VPSO = .367 Option 2: A=7.009, B=1462.266, C=215.11	
Xylene (-m)						0.0459	N/A	N/A	106.1700	0.0700	0.0010	106.17	106.17	Option 1: VP40 = .192 VPSO = .367 Option 2: A=7.009, B=1462.266, C=215.11	
Gasoline (RVP 13) 1,2,4-Triisopropylbenzene	Apr	46.44	41.38	51.49	45.40	5.3560	N/A	N/A	62.000	0.0250	0.0001	92.00	92.00	Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56	
Benzene						0.7918	N/A	N/A	78.1100	0.0180	0.0039	78.11	84.16	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=201.53, C=222.65	
Cyclohexane						0.8289	N/A	N/A	84.1600	0.0024	0.0006	84.16	84.16	Option 2: A=6.975, B=1424.255, C=213.21	
Ethylbenzene						0.0586	N/A	N/A	106.1700	0.0140	0.0010	106.17	106.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)						1.3282	N/A	N/A	86.1700	0.0100	0.0010	86.17	86.17	Option 2: A=6.975, B=1424.255, C=213.21	
Isooctane						0.3250	N/A	N/A	114.2200	0.0400	0.0036	114.22	114.22	Option 2: A=6.876, B=1171.17, C=224.41	
Methyl-tert-butyl ether (MTBE)						0.0302	N/A	N/A	120.2000	0.0050	0.0000	120.20	120.20	Option 2: A=6.954, B=1344.8, C=219.48 Option 1: VP40 = .192 VPSO = .367	
Unidentified Components						2.2933	N/A	N/A	88.1500	0.1200	0.0762	88.15	88.15	Option 2: A=6.954, B=1344.8, C=219.48 Option 1: VP40 = .192 VPSO = .25	

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Toluene	0.2134	N/A	92.13	Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components	7.7925	N/A	89.60	Option 2: A=7-009, B=1462.286, C=215.11
Xylene (-m)	0.0552	N/A	106.17	Option 2: A=7-009, B=1462.286, C=215.11
Gasoline (RVP 8)	45.40	3.3843	N/A	92.00 Option 4: RVP=8, ASTM Slope=-3
1,2,4-Trimethylbenzene	0.0143	N/A	120.1900	Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	0.9115	N/A	78.1100	Option 2: A=6-905, B=1211.033, C=220.79
Cyclohexane	0.0510	N/A	84.1800	Option 2: A=6-841, B=1201.53, C=222.65
Ethylbenzene	0.0795	N/A	106.1700	Option 2: A=6-841, B=1424.255, C=213.04
Hexane (-n)	1.5166	N/A	86.1700	Option 2: A=6-876, B=171.17, C=224.41
Isooctane	0.4111	N/A	114.2200	Option 1: VP50 = 387 / VP60 = 58
Isopropyl benzene	0.0366	N/A	120.2000	Option 2: A=6-963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)	2.5899	N/A	88.1500	Option 1: VP50 = 2.5 VP60 = 3.22
Toluene	0.2499	N/A	92.1300	Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components	4.5463	N/A	65.8622	89.52
Xylene (-m)	0.0660	N/A	106.1700	106.17 Option 2: A=7-009, B=1462.286, C=215.11
Gasoline (RVP 8)	49.47	61.48	45.40	92.00 Option 4: RVP=8, ASTM Slope=-3
1,2,4-Trimethylbenzene	0.0170	N/A	88.0000	Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.0287	N/A	78.1100	Option 2: A=6-905, B=1211.033, C=220.79
Cyclohexane	1.0702	N/A	84.1600	Option 2: A=6-841, B=1201.53, C=222.65
Ethylbenzene	0.0925	N/A	106.1700	Option 2: A=6-876, B=1424.255, C=213.21
Hexane (-n)	1.0887	N/A	86.1700	Option 2: A=6-876, B=171.17, C=224.41
Isooctane	0.4926	N/A	114.2200	Option 1: VP50 = 387 / VP60 = 58
Isopropyl benzene	0.0431	N/A	120.2000	Option 2: A=6-963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)	2.3841	N/A	88.1500	Option 1: VP50 = 2.5 VP60 = 3.22
Toluene	0.2863	N/A	92.1300	Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components	4.9426	N/A	65.7802	89.52
Xylene (-m)	0.0769	N/A	106.1700	106.17 Option 2: A=7-009, B=1462.286, C=215.11
Gasoline (RVP 8)	52.19	64.11	45.40	92.00 Option 4: RVP=8, ASTM Slope=-3
1,2,4-Trimethylbenzene	0.0190	N/A	88.0000	Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.1092	N/A	78.1100	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Cyclohexane	1.1520	N/A	84.1600	84.16 Option 2: A=6-841, B=1201.53, C=222.65
Ethylbenzene	0.1017	N/A	106.1700	106.17 Option 2: A=6-876, B=1424.255, C=213.21
Hexane (-n)	1.3232	N/A	86.1700	86.17 Option 2: A=6-876, B=171.17, C=224.41
Isooctane	0.5443	N/A	114.2200	114.22 Option 1: VP50 = 387 / VP60 = 58
Isopropyl benzene	0.0477	N/A	120.2000	120.20 Option 1: VP50 = 2.5 VP60 = 3.22
Methyl-tert-butyl ether (MTBE)	3.0868	N/A	88.1500	89.52
Toluene	0.3116	N/A	92.1300	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components	5.2099	N/A	65.7389	89.52
Xylene (-m)	0.0847	N/A	106.1700	106.17 Option 2: A=7-009, B=1462.286, C=215.11
Gasoline (RVP 8)	57.30	51.62	62.97	92.00 Option 4: RVP=8, ASTM Slope=-3
1,2,4-Trimethylbenzene	0.0163	N/A	120.1900	120.19 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.0829	N/A	78.1100	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Cyclohexane	1.1253	N/A	84.1600	84.16 Option 2: A=6-841, B=1201.53, C=222.65
Ethylbenzene	0.0987	N/A	106.1700	106.17 Option 2: A=6-876, B=1424.255, C=213.21
Hexane (-n)	1.7826	N/A	86.1700	86.17 Option 2: A=6-876, B=171.17, C=224.41
Isooctane	0.5278	N/A	114.2200	114.22 Option 1: VP50 = 387 / VP60 = 58
Isopropyl benzene	0.0462	N/A	120.2000	120.20 Option 2: A=6-963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)	3.0253	N/A	88.1500	88.15 Option 1: VP50 = 2.5 VP60 = 3.22
Toluene	0.3033	N/A	92.1300	92.13 Option 2: A=6-954, B=1344.8, C=219.48

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Unidentified Components Xylene (-m)		5.1231 0.0821	N/A N/A	65.7513 106.1700	0.6576 0.0700	0.8741 0.0020	89.52 106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Sep	53.23 47.96	58.50 45.40	3.5255 0.0155	N/A N/A	68.0000 120.1900	0.0250	0.0001
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.9651 1.0055 0.8554 1.8000	N/A N/A N/A N/A	78.1100 84.1600 86.1700 114.2200	0.0180 0.0024 0.0140 0.0100	0.0067 0.0009 0.0005 0.0061	78.11 84.16 86.17 114.22	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VPd0 = .387 VP60 = .58
Isobutyl benzene Isopropyl benzene Methyl-tert-butyl ether (MTBE)		0.4494 0.0395 2.7327	N/A N/A N/A	114.2200 120.2000 88.1500	0.0400 0.0050 0.0880	0.0069 0.0001 0.0923	120.20 88.15 92.13	Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VPd0 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components Xylene (-m)		0.2665 4.7285 0.7101	N/A N/A N/A	92.1300 65.8210 106.1700	0.0700 0.0700 0.0700	0.0072 0.0773 0.0019	92.13 89.52 106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Oct	48.01 43.23	52.78 45.40	5.5239 0.0125	N/A N/A	62.0000 120.1900	0.0250	0.0001
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.8294 0.8673 0.0706 1.3882	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	0.0040 0.0006 0.0003 0.0037	78.11 84.16 106.17 86.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 1: VPd0 = .171.17, C=224.41
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE)		0.3523 0.0322 2.3845	N/A N/A N/A	114.2200 120.2000 88.1500	0.0400 0.0050 0.0700	0.0038 0.0000 0.0042	114.22 120.20 88.15	Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VPd0 = .92 VP60 = 2.5 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components Xylene (-m)		0.2248 8.0307 0.0585	N/A N/A N/A	92.1300 60.1086 106.1700	0.0700 0.0256 0.0700	0.0042 0.0053 0.0011+	92.13 89.60 106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Nov	43.22 39.55	46.89 45.40	5.0253 0.0101	N/A N/A	62.0000 120.1900	0.0250	0.0001
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.7194 0.7548 0.0590 1.2149	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	0.0038 0.0005 0.0002 0.0036	78.11 84.16 106.17 86.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 1: VPd0 = .171.17, C=224.41
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE)		0.0265 2.1067 0.1916	N/A N/A N/A	120.2000 88.1500 60.1853	0.0050 0.1200 0.0700	0.0032 0.0046 0.0040	114.22 120.20 88.15	Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VPd0 = .92 VP60 = 2.5 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components Xylene (-m)		7.3245 0.0489	N/A N/A	92.1300 60.1853	0.0700	0.0046 0.0040	92.13 89.60	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Dec	37.70 34.02	41.39 45.40	4.4864 0.0079	N/A N/A	62.0000 120.1900	0.0250	0.0001
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.8681 0.6407 0.0478 1.0380	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	0.0036 0.0005 0.0002 0.0034	78.11 84.16 106.17 86.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE)		0.0213 0.2130 0.1586	N/A N/A N/A	114.2200 120.2000 60.1853	0.0400 0.0050 0.0700	0.0028 0.0000 0.0070	114.22 120.20 89.60	Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VPd0 = .13 VP60 = 1.82 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		6.5523	N/A	60.1853	0.6256	0.0001	89.60	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0

Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Xylyene (cm)

	0.0395	N/A	N/A	106.1700	0.0700	0.0009	106.17	Option 2: A=7.008, B=1462.286, C=215.11

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	327.3074	339.3021	381.3254	428.9323	273.0475	301.6168	321.2125	314.8187	296.1117	446.9883	397.1706	346.9302
Seal Factor A (lb-mole/(ft ² yr)):	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000
Seal Factor B (lb-mole/(ft ² yr) (mph) ^{1.75}):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Value of Vapor Pressure Function:	0.0861	0.0863	0.1091	0.1128	0.0654	0.0722	0.0769	0.0754	0.0885	0.1174	0.1043	0.0911
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	4.2890	4.4203	4.8814	5.3560	3.3843	3.6909	3.8965	3.8286	3.5255	5.5239	5.0253	4.4864
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Vapor Molecular Weight (lb/lb-mole):	62.0000	62.0000	62.0000	62.0000	68.0000	68.0000	68.0000	68.0000	68.0000	62.0000	62.0000	62.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	0.0000	1.7350	0.8012	0.6712	1.6892	1.4190	1.9121	1.2440	1.7060	1.6820	1.7097	1.6763
Number of Columns:	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000	7.0000
Effective Column Diameter (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Net Throughput (gal/min):	0.0000	951.380.0000	439.327.0000	368.031.0000	926.295.0000	778.086.0000	1,048.507.0000	682.128.0000	\$35.493.0000	922.355.0000	937.521.0000	919.188.0000
Shell Clinging Factor (lb/lb-mole soft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Deck Fitting Losses (lb):	36.4836	37.8181	42.4270	47.6351	30.3798	33.5584	35.7387	35.0273	31.8333	49.7328	44.1899	38.8001
Value of Vapor Pressure Function:	0.0861	0.0863	0.1001	0.1129	0.0654	0.0722	0.0788	0.0754	0.0885	0.1174	0.1043	0.0911
Vapor Molecular Weight (lb/lb-mole):	62.0000	62.0000	62.0000	62.0000	68.0000	68.0000	68.0000	68.0000	68.0000	62.0000	62.0000	62.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000	82.0000
Deck Seam Losses (lb):	211.0356	218.7552	245.4145	276.6870	175.7287	194.1154	206.7269	202.6119	184.1366	287.6740	255.6122	223.2783
Deck Seam Length (ft):	2,860.9300	2,860.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300	2,660.9300
Deck Seam Loss per Unit Length Factor (lb-mole/yr):	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400
Deck Seam Length Factor(lb/ft ²):	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800	0.2800
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Vapor Molecular Weight (lb/lb-mole):	62.0000	62.0000	62.0000	62.0000	68.0000	68.0000	68.0000	68.0000	68.0000	62.0000	62.0000	62.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Deck Fitting Status	Quantity	KFa (lb-mole/yr)	KFb (lb-mole/(yr mph ^{0.75}))	Deck Fitting Loss Factors	Losses (lb)							
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2	1.60	0.00		0.00							
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00		0.00							
Column Well (24-in. Diam.)/Built-Up Coll./Sliding Cover, Gasketed	1	33.00	0.00		0.00							
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gasketed	1	43.00	0.00		0.00							
Total Losses (lb):	575.4286	588.2104	669.9880	755.1355	480.8451	530.7096	565.5902	553.7019	503.7876	786.0770	698.6824	610.4849

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Components					
Gasoline (RVP 8)	1,496.81	7.97	166.54	963.32	2,634.63
1,2,4-Trimethylbenzene	0.23	0.20	0.03	0.15	0.61
Benzene	10.14	0.14	1.13	6.53	17.94
Cyclohexane	1.41	0.02	0.16	0.91	2.49
Ethylbenzene	0.71	0.11	0.08	0.46	1.36
Hexane (n)	9.31	0.08	1.04	5.99	16.41
Isooctane	10.72	0.32	1.19	6.90	19.14
Isopropyl benzene	0.12	0.04	0.01	0.08	0.25
Methyl-tert-butyl ether (MTBE)	139.34	0.70	15.50	89.88	245.23
Toluene	10.97	0.56	1.22	7.06	19.80
Unidentified Components	1,310.91	5.24	145.85	843.68	2,305.69
Xylene (-m)	2.95	0.56	0.33	1.90	5.73
Gasoline (RVP 13)	2,670.16	8.28	297.09	1,718.47	4,693.98
1,2,4-Trimethylbenzene	0.19	0.21	0.02	0.12	0.55
Benzene	10.07	0.15	1.12	6.48	17.82
Cyclohexane	1.41	0.02	0.16	0.91	2.49
Ethylbenzene	0.64	0.12	0.07	0.41	1.23
Hexane (n)	9.47	0.08	1.05	6.09	16.70
Isooctane	8.54	0.33	0.95	5.49	15.31
Isopropyl benzene	0.10	0.04	0.01	0.07	0.22
Methyl-tert-butyl ether (MTBE)	203.67	0.99	22.68	131.08	358.41
Toluene	10.38	0.58	1.16	6.68	18.80
Unidentified Components	2,423.05	5.18	269.59	1,559.43	4,257.25
Xylene (-m)	2.63	0.58	0.29	1.70	5.20
Total:	4,166.96	16.25	463.62	2,681.79	7,328.62

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002004
City: Searsport
State: Maine
Company: Irving Oil Corp
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 48.00
Diameter (ft): 162.00
Liquid Height (ft): 48.00
Avg. Liquid Height (ft): 24.00
Volume (gallons): 7,401,812.00
Turnovers: 6.75
Net Throughput (gallyr): 49,943,405.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 5.06
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Avg.	Min.	Max.				
Residual oil no. 6	Jan	39.52	33.27	45.76	48.46	0.0000	0.0000	190.0000	78.1100	0.0000	387.00 Option 1: VP=40, B=104, C=220.79
Benzene						0.6436	0.5296	0.7762	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.0512	0.0401	0.0650	92.1300	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene						0.1689	0.1358	0.2087	193.2972	1.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components						0.0000	0.0000	0.0000	106.1700	0.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Xylene (-o)						0.0328	0.0255	0.0419	168.1700	0.0000	106.17 Option 2: A=6-998, B=1474.679, C=213.69
Residual oil no. 6	Feb	42.16	34.40	49.91	48.46	0.0000	0.0000	190.0000	78.1100	0.0000	387.00 Option 5: A=10.104, B=104.75
Benzene						0.6968	0.5487	0.8769	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.0567	0.0420	0.0757	92.1300	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene						0.1848	0.1413	0.2393	193.4220	1.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components						0.0000	0.0000	0.0000	106.1700	0.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Xylene (-o)						0.0364	0.0267	0.0490	106.1700	0.0000	106.17 Option 2: A=6-998, B=1474.679, C=213.69
Residual oil no. 6	Mar	48.20	39.34	57.05	48.46	0.0000	0.0000	190.0000	78.1100	0.0000	387.00 Option 5: A=10.104, B=104.75
Benzene						0.8340	0.6395	1.0756	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.0711	0.0569	0.0879	92.1300	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene						0.1679	0.1210	0.2110	193.326	1.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components						0.0000	0.0000	0.0000	106.1700	0.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Xylene (-o)						0.0459	0.0326	0.0639	106.1700	0.0000	106.17 Option 2: A=6-998, B=1474.679, C=213.69
Residual oil no. 6	Apr	54.16	43.78	64.54	48.46	0.0000	0.0000	190.0000	78.1100	0.0000	387.00 Option 5: A=10.104, B=104.75
Benzene						0.9811	0.7317	1.3229	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.0863	0.0603	0.1269	92.1300	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene						0.2746	0.1953	0.3797	193.0576	1.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components						0.0575	0.0386	0.0835	106.1700	0.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Xylene (-o)						0.0000	0.0000	0.0001	190.0000	0.0000	387.00 Option 5: A=10.104, B=104.75
Residual oil no. 6	May	60.08	46.11	72.06	48.46	0.0000	0.0000	190.0000	78.1100	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Benzene						1.7075	1.6318	1.6167	106.1700	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Ethylbenzene						0.1088	0.0798	0.1632	92.1300	0.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Toluene						0.3310	0.2255	0.4756	192.8951	1.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Unidentified Components						0.0000	0.0000	0.0001	106.1700	0.0000	106.17 Option 5: A=10.104, B=104.75
Xylene (-o)						0.0713	0.0458	0.1082	190.0000	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Residual oil no. 6	Jun	64.97	52.07	77.87	48.46	0.00001	0.0000	190.0000	78.1100	0.0000	387.00 Option 2: A=6-975, B=1424.255, C=213.21
Benzene						1.3383	0.9333	1.8792	106.1700	0.0000	78.11 Option 2: A=6-954, B=1344.8, C=219.48
Ethylbenzene						0.1188	0.0819	0.1970	92.1300	0.0000	106.17 Option 2: A=6-998, B=1474.679, C=213.69
Toluene						0.3847	0.2567	0.5631	192.7686	1.0000	92.13 Option 2: A=6-905, B=1211.033, C=220.79
Unidentified Components						0.0001	0.0001	0.0001	106.1700	0.0000	387.00 Option 2: A=6-975, B=1424.255, C=213.21
Xylene (-o)						0.0528	0.0348	0.1314	190.0000	0.0000	106.17 Option 2: A=6-954, B=1344.8, C=219.48
Residual oil no. 6	Jul	67.56	54.78	80.34	48.46	0.0001	0.0000	190.0000	78.1100	0.0000	387.00 Option 5: A=10.104, B=104.75
Benzene						1.4250	1.0056	2.0008	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.1405	0.0903	0.2131	92.1300	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene						0.4160	0.2800	0.6042	192.7046	1.0000	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components						0.0001	0.0001	0.0001	106.1700	0.0000	387.00 Option 2: A=6-998, B=1474.679, C=213.69
Xylene (-o)						0.0528	0.0348	0.1314	190.0000	0.0000	106.17 Option 2: A=6-905, B=1211.033, C=220.79
Residual oil no. 6	Aug	65.85	54.11	77.60	48.46	0.0001	0.0000	190.0000	78.1100	0.0000	387.00 Option 5: A=10.104, B=104.75
Benzene						1.3107	0.9897	1.8660	106.1700	0.0000	78.11 Option 2: A=6-905, B=1211.033, C=220.79
Ethylbenzene						0.1327	0.0682	0.1553	106.1700	0.0000	106.17 Option 2: A=6-975, B=1424.255, C=213.21

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Toluene	0.3952	0.2741	0.5587	92.1300	0.0000	0.0046	92.13	Option 2: A=6.954, B=1344.8, C=219.48	
Unidentified Components	0.0001	0.0001	0.0001	192.7467	1.0000	0.9880	387.00	Option 2: A=6.988, B=1474.679, C=213.69	
Xylene (-o)	0.0874	0.0574	0.1302	106.1700	0.0000	0.0017	106.17	Option 2: A=6.988, B=1474.679, C=213.69	
Residual oil no. 6									
Benzene	0.0000	0.0000	0.0001	190.0000	0.0000	0.0056	387.00	Option 5: A=6.104, B=10475	
Ethylbenzene	1.795	0.8986	1.5486	78.1100	0.0000	0.0008	78.11	Option 2: A=6.905, B=1211.033, C=220.79	
Toluene	0.1099	0.0768	0.1546	106.1700	0.0000	0.0048	106.17	Option 2: A=6.975, B=1424.255, C=213.21	
Unidentified Components	0.3338	0.2423	0.4532	92.1300	0.0000	0.0048	92.13	Option 2: A=6.954, B=1344.8, C=219.48	
Xylene (-o)	0.0000	0.0000	0.0000	192.8878	1.0000	0.9874	387.00	Option 2: A=6.988, B=1474.679, C=213.69	
Residual oil no. 6									
Benzene	0.0720	0.0487	0.1024	106.1700	0.0000	0.0017	106.17	Option 2: A=6.988, B=1474.679, C=213.69	
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									
Residual oil no. 6									
Benzene	53.46	45.37	61.54	48.46	0.0000	190.0000	0.0000	Option 5: A=10.104, B=10475	
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									
Residual oil no. 6									
Benzene	47.24	41.53	52.95	48.46	0.0000	190.0000	0.0000	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									
Residual oil no. 6									
Benzene									
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									
Residual oil no. 6									
Benzene									
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									
Residual oil no. 6									
Benzene	41.35	35.95	46.74	48.46	0.0000	190.0000	0.0000	78.11	Option 5: A=10.104, B=10475
Ethylbenzene									
Toluene									
Unidentified Components									
Xylene (-o)									

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.5626	0.6798	1.0757	1.5145	2.2258	2.7479	3.0725	2.6634	1.8280	1.1885	0.8478	0.5077
Vapor Space Volume (cu ft):	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771
Vapor Density (lb/cu ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Expansion Factor:	0.0500	0.0618	0.0898	0.0922	0.0984	0.0970	0.0974	0.0984	0.0998	0.0998	0.0951	0.0431
Ventted Vapor Saturation Factor:	1.0000	1.0000	1.0000	1.0000	0.9899	0.9899	0.9899	0.9899	0.9899	0.9899	1.0000	1.0000
Tank Vapor Space Volume												
Vapo. Space Volume (cu ft):	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771	529,470,4771
Tank Diameter (ft):	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000
Vapor Space Outage (ft):	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875
Tank Shell Height (ft):	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000
Average Liquid Height (ft):	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000	24.0000
Roof Outage (ft):	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875	1.6875
Roof Height (ft):	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625	5.0625
Roof Slope (fr/t):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft):	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000	81.0000
Vapor Density												
Vapor Density (lb/cu ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Molecular Weight (lb/mole):	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Daily Avg. Liquid Surface Temp. (deg. R):	499.1888	501.8397	507.9870	513.8835	519.7525	524.6394	527.2295	525.5241	520.0275	513.1273	506.9064	501.0170
Daily Average Ambient Temp. (deg. F):	20.8500	23.3000	32.9600	43.2000	53.3000	62.4000	68.5500	67.2500	59.1000	48.5000	38.7000	26.4500
Ideal Gas Constant R (psi-cu in-lb/mol-deg R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282	508.1282
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorptance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft/day):	597.1021	888.0387	1,221.4895	1,492.4381	1,767.1939	1,931.5398	1,908.9654	1,688.9654	1,343.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0500	0.0618	0.0898	0.0808	0.0922	0.0934	0.0984	0.0970	0.0984	0.0974	0.0980	0.0431
Daily Vapor Temperature Range (deg. R):	24.9768	31.0203	35.4252	41.5200	47.9034	51.6085	51.1257	46.9646	40.2648	32.3893	22.8576	21.5716
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000
Surface Temperature (psia):	501.8297	507.8670	513.8325	519.7525	524.6394	527.2285	525.5241	520.0275	513.1273	506.9064	501.0170	495.6241
Daily Avg. Liquid Surface Temp. (deg R):	499.1888	499.0107	503.4525	507.7767	511.7372	514.4450	513.7839	509.9612	501.1970	512.6158	506.4099	501.2121
Daily Min. Liquid Surface Temp. (deg R):	492.9446	494.0748	500.5847	504.2125	507.5415	510.0108	517.2852	530.0387	521.2121	20.4000	16.6000	17.3000
Daily Max. Liquid Surface Temp. (deg R):	505.4330	516.7233	16.9600	18.2000	19.8000	20.6000	20.3000	20.4000	20.4000	20.4000	20.4000	20.4000
Daily Ambient Temp. Range (deg. R):	18.9000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000	19.6000
Verified Vapor Saturation Factor	1.0000	1.0000	1.0000	1.0000	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	1.0000	1.0000
Ventted Vapor Saturation Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):												

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft):	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875	25.6875
Working Losses (lb):	0.2630	0.8953	0.3546	0.8535	0.6458	0.6958	0.7724	1.0548	0.5919	1.1480	0.5905
Vapor Molecular Weight (lb/mole):	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000	190.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000
Net Throughput (gal/mo.):	2,906,845.000	9,411,618.000	2,908,577.000	5,509,397.000	3,305,123.000	2,950,780.000	2,970,068.000	4,326,217.000	2,996,982.000	7,621,504.000	5,036,393.000
Annual Turnovers:	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475	6.7475
Maximum Liquid Volume (gal):	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000	7,401,812.000
Maximum Liquid Height (ft):	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000	48.0000
Tank Diameter (ft):	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000	162.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	0.8456	1.5752	1.4303	2.3679	2.8717	3.4436	3.8448	3.7181	2.4199	2.3365	1.2384
											0.5977

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Residual oil no. 6	7.87	18.73	26.60
Benzene	0.05	0.10	0.15
Ethylbenzene	0.00	0.01	0.02
Toluene	0.04	0.09	0.13
Unidentified Components	7.76	18.50	26.26
Xylene (-o)	0.01	0.03	0.04

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Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification	1183002005.tn Searsport Maine Irving Oil Corp. Internal Floating Roof Tank 2000 Operations	Quantity	2
Tank Dimensions	Diameter (ft): 110.00 Volume (gallons): 3,360,000.00 Turnovers: 0.00		
Self Supp. Roof? (y/n): N	No. of Columns: 7.00		
Eff. Col. Diam. (ft): 1.00			
Paint Characteristics	Light Rust White/White Good White/White Good		
Internal Shell Condition:			
Shell Color/Shade:			
Shell Condition:			
Roof Color/Shade:			
Roof Condition:			
Rim-Seal System	Liquid-mounted None		
Primary Seal:			
Secondary Seal:			
Deck Characteristics			
Deck Fitting Category:	Detail		
Deck Type:	Bolted		
Construction:	Sheet		
Deck Seam:	Sheet: 5 Ft Wide		
Deck Seam Len. (ft):	1,900.66		
Deck Fitting/Status			
Access Hatch (24-in. Diam.)/Unbolted Cover, Gasketed			
Automatic Gauge Float Well/Unbolted Cover, Ungasketed			
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungasketed			
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed			
Roof Leg or Hanger Well/Adjustable			
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Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open
Stub Drain (1-in. Diameter)/

Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

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TANKS 4.0

Emissions Report - Detail Form

Liquid Contents of Storage Tank

Internal Floating Roof Tank Searsport, Maine

TANKS 4.0

Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Toluene	0.2134	N/A	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	7.7925	N/A	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	0.0552	N/A	105.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13)	51.25	45.58	56.92	45.40
1,2,4-Trimethylbenzene	0.0143	N/A	92.1300	0.0700
Benzene	0.9115	N/A	0.0700	0.0041
Cyclohexane	0.5910	N/A	0.6256	0.0064
Ethylbenzene	0.0795	N/A	0.6256	0.0064
Hexane (-n)	1.5166	N/A	0.6256	0.0064
Isooctane	0.4111	N/A	0.6256	0.0064
Isopropyl benzene	0.0368	N/A	0.6256	0.0064
Methyl-Tert-butyl ether (MTBE)	2.5899	N/A	0.6256	0.0064
Toluene	0.2498	N/A	0.6256	0.0064
Unidentified Components	8.5380	N/A	0.6256	0.0064
Xylene (-m)	0.0680	N/A	0.6256	0.0064
Gasoline (RVP 13)	55.47	49.47	61.48	45.40
1,2,4-Trimethylbenzene	0.0170	N/A	92.1300	0.0700
Benzene	1.0287	N/A	0.0700	0.0041
Cyclohexane	1.2702	N/A	0.0700	0.0041
Ethylbenzene	0.9925	N/A	0.0700	0.0041
Hexane (-n)	1.6867	N/A	0.0700	0.0041
Isooctane	0.4926	N/A	0.0700	0.0041
Isopropyl benzene	0.0431	N/A	0.0700	0.0041
Methyl-Tert-butyl ether (MTBE)	2.8941	N/A	0.0700	0.0041
Toluene	0.2853	N/A	0.0700	0.0041
Unidentified Components	9.2342	N/A	0.0700	0.0041
Xylene (-m)	0.0769	N/A	0.0700	0.0041
Gasoline (RVP 13)	58.15	52.19	64.11	45.40
1,2,4-Trimethylbenzene	0.0190	N/A	92.1300	0.0700
Benzene	1.1092	N/A	0.0700	0.0044
Cyclohexane	1.1220	N/A	0.0700	0.0044
Ethylbenzene	1.0117	N/A	0.0700	0.0044
Hexane (-n)	1.8232	N/A	0.0700	0.0044
Isooctane	0.5443	N/A	0.0700	0.0044
Isopropyl benzene	0.0477	N/A	0.0700	0.0044
Methyl-Tert-butyl ether (MTBE)	3.0668	N/A	0.0700	0.0044
Toluene	0.3116	N/A	0.0700	0.0044
Unidentified Components	8.7006	N/A	0.0700	0.0044
Xylene (-m)	0.0847	N/A	0.0700	0.0044
Gasoline (RVP 13)	57.30	51.62	62.97	45.40
1,2,4-Trimethylbenzene	0.0183	N/A	92.1300	0.0700
Benzene	1.0829	N/A	78.1100	0.0180
Cyclohexane	1.1253	N/A	84.1600	0.0024
Ethylbenzene	0.0587	N/A	105.1700	0.0140
Hexane (-n)	1.7526	N/A	86.1700	0.0100
Isooctane	0.5278	N/A	114.2200	0.0040
Methyl-Tert-butyl ether (MTBE)	0.0462	N/A	120.2000	0.0050
Toluene	3.0253	N/A	88.1500	0.1200
Unidentified Components	0.3633	N/A	92.1300	0.0700

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Unidentified Components Xylene (-m)		9.5495 0.0821	N/A N/A	59.9406 106.1700	0.6256 0.0700	0.8962 0.0013	89.60 106.17	Option 2: A=7.009, B=1462.286, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Sep	53.23 0.0155	47.96 N/A	58.50 N/A	45.40 N/A	61.120 N/A	0.0250 N/A	Option 4: RVP=13, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56 Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.9651 1.0055 0.0854 1.0000	N/A N/A N/A N/A	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	78.11 84.16 106.17 0.0039	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components Xylene (-m)		0.4494 0.0395 2.7327 0.2665 6.5887 0.0710	N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A	114.2200 120.2000 88.1500 92.1300 60.0891 106.1700	0.0400 0.0050 0.1200 0.0700 0.6256 0.0700	114.22 120.20 88.15 92.13 89.60 106.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Oct	48.01 0.0125	43.23 N/A	52.78 N/A	45.40 N/A	5.5239 N/A	0.0250 N/A	92.00 120.19
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.8294 0.3673 0.0706 1.3882	N/A N/A N/A N/A	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	78.11 84.16 106.17 0.0037	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components Xylene (-m)		0.3523 0.0322 2.3845 2.2448 8.0307 0.0685	N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A	114.2200 120.2000 88.1500 92.1300 60.1038 106.1700	0.0400 0.0050 0.1200 0.0700 0.6256 0.0700	114.22 120.20 88.15 92.13 89.60 106.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Nov	43.22 0.0101	39.55 N/A	46.89 N/A	45.40 N/A	5.0253 N/A	0.0250 N/A	92.00 120.19
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.7548 0.0590 1.2149 0.2690	N/A N/A N/A N/A	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	78.11 84.16 106.17 0.0038	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components Xylene (-m)		0.0265 0.2065 2.0167 2.1916 7.3245 0.0489	N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A	114.2200 120.2000 88.1500 92.1300 60.1853 106.1700	0.0050 0.0050 0.1200 0.0700 0.6256 0.0700	114.22 120.20 88.15 92.13 89.60 106.17	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Gasoline (RVP 13) 1,2,4-Trimethylbenzene	Dec	37.70 0.0079	34.02 N/A	41.39 N/A	45.40 N/A	4.4964 N/A	0.0250 N/A	92.00 120.19
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.6081 0.6407 0.0478 1.0380	N/A N/A N/A N/A	N/A N/A N/A N/A	78.1100 84.1600 106.1700 86.1700	0.0180 0.0024 0.0140 0.0100	78.11 84.16 106.17 0.0034	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components		0.2130 0.0211 1.9200 0.1586 6.5523	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	114.2200 120.2000 88.1500 92.1300 60.1853	0.0400 0.0050 0.1200 0.0700 0.6256	114.22 120.20 88.15 92.13 89.60	Option 2: A=6.905, B=1211.033, C=220.79 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP50 = 387 VP60 = 58 Option 2: A=6.963, B=1460.793, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.286, C=215.11

TANKS 4.0

Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

1183002005.tn
Irving Oil Corp.
Internal Floating Roof Tank
Searsport, Maine

Xylene (cm)

1183002005.tn
Irving Oil Corp.
Internal Floating Roof Tank
Searsport, Maine

0.0395

N/A

106.1700

0.0700

0.0009

106.17

Option 2: A=7.009, B=1462.288, C=215.11

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	Losses (lb)												Deck Fitting Loss Factors KFa (lb-mole/yr m ²)	Deck Fitting Loss Factors KFb (lb-mole/yr m ²)	Losses (lb)
	January	February	March	April	May	June	July	August	September	October	November	December			
Rim Seal Losses (lb):	78,3062	81,1707	91,0628	102,6704	115,6890	128,6428	137,6913	134,7235	121,5324	106,7435	94,8467	82,6490			
Seal Factor A (lb-mole/ft ² /yr):	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000	1.6000			
Seal Factor B (lb-mole/ft ² /yr):	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000	0.3000			
Value of Vapor Pressure Function:	0.0861	0.0863	0.1081	0.1129	0.1227	0.1415	0.1514	0.1482	0.1337	0.1174	0.1043	0.0911			
Vapor Pressure at Daily Average Liquid Temperature (psia):															
Surface Temperature (psia):	4,2890	4,4203	4,8614	5,3560	5,8832	6,3783	6,7105	6,6032	6,1120	5,5239	5,0258	4,4964			
Tank Diameter (ft):	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000			
Vapor Molecular Weight (lb/lb-mole):	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000			
Product Factor:	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000			
Withdrawal Losses (lb):	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000			
Number of Columns:	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000	7,0000			
Effective Column Diameter (ft):	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000			
Net Throughput (gal/mo):	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000			
Shell Clingage Factor (bbl/1000 sqft):	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015	0,0015			
Average Organic Liquid Density (lb/gal):	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000	5,8000			
Tank Diameter (ft):	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000			
Deck Fitting Losses (lb):	403,9445	418,7207	469,7494	529,6276	596,8305	663,6068	710,2839	694,9717	627,1558	550,6386	489,2689	427,3785			
Value of Vapor Pressure Function:	0,0861	0,0863	0,1001	0,1128	0,1227	0,1415	0,1514	0,1482	0,1337	0,1174	0,1043	0,0911			
Vapor Molecular Weight (lb/lb-mole):	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000			
Product Factor:	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000			
Tot. Roof Fitting Loss Factor (lb-mole/yr):	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000	907,9000			
Deck Seam Losses (lb):	150,7394	156,2533	175,2857	197,6403	222,7183	247,6371	265,0555	259,3415	234,0460	205,4810	182,5797	159,4842			
Deck Seam Length (ft):	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600	1,900,6600			
Deck Seam Loss per Unit Length Factor (lb-mole/ft ² /yr):	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400	0,1400			
Deck Seam Length Factor (bbl/sqft):	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000	0,2000			
Tank Diameter (ft):	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000			
Vapor Molecular Weight (lb/lb-mole):	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000	62,0000			
Product Factor:	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000			
Total Losses (lb):	632,9902	656,1247	736,1078	828,9382	935,2468	1,039,8867	1,113,0307	1,089,0363	982,8142	862,8630	766,8953	69,7116			

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 13)	1,275.99	0.00	6,582.21	2,456.27	10,314.47
1,2,4-Trimethylbenzene	0.11	0.00	0.56	0.21	0.88
Benzene	5.15	0.00	26.56	9.91	41.62
Cyclohexane	0.72	0.00	3.70	1.38	5.80
Ethylbenzene	0.34	0.00	1.77	0.66	2.78
Hexane (-n)	4.78	0.00	24.65	9.20	38.63
Isooctane	4.94	0.00	25.49	9.51	39.94
Isopropyl benzene	0.06	0.00	0.29	0.11	0.45
Methyl-tert-butyl ether (MTBE)	100.05	0.00	516.10	192.59	808.75
Toluene	5.45	0.00	28.10	10.49	44.03
Unidentified Components	1,152.97	0.00	5,947.62	2,219.47	9,320.06
Xylene (-m)	1.43	0.00	7.36	2.75	11.53

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification		Quantity
User Identification:	1183002006.tn	
City:	Searsport	
State:	Maine	
Company:	Irving Oil Corp	
Type of Tank:	Internal Floating Roof Tank	
Description:	2000 Operations	
Tank Dimensions		
Diameter (ft):	137.00	
Volume (gallons):	5,250,000.00	
Turnovers:	2.42	
Self Supp. Roof? (y/n):	N	
No. of Columns:	9.00	
Eff. Col. Diam. (ft):	1.00	
Paint Characteristics		
Internal Shell Condition:	Light Rust	
Shell Color/Shade:	White/White	
Shell Condition:	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Rim Seal System		
Primary Seal:	Liquid-mounted	
Secondary Seal:	None	
Deck Characteristics		
Deck Fitting Category:	Detail	
Deck Type:	Bolted	
Construction:	Sheet	
Deck Seam:	Sheet: 5 Ft Wide	
Deck Seam Len. (ft):	2,948.23	
Deck Fitting/Status		
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed		
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungask.		
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed		
Roof Leg or Hanger Well/Adjustable		
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open		

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.
Stub Drain (1-in. Diameter)
Automatic Gauge Float Well/Unbolted Cover, Ungasketed

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

1 1

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Max.	Min.	Avg.				
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Apr	46.44	41.38	51.49	45.40	3.0606	N/A	68.0000 N/A 120.1900	0.0250	0.0001	92.00 Option 4: RVP=8, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7918	N/A	78.1100 N/A N/A	0.0180	0.0063	78.11 Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9289	N/A	84.1600 N/A N/A	0.0024	0.0098	84.16 Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0666	N/A	108.1700 N/A N/A	0.0140	0.0004	108.17 Option 2: A=6.975, B=1424.255, C=213.65
Hexane (-n)						1.3292	N/A	86.1700 N/A N/A	0.0100	0.0058	86.17 Option 2: A=6.876, B=171.17, C=224.41
Isooctane						0.9250	N/A	114.2200 N/A N/A	0.0400	0.0057	114.22 Option 1: VP ₅₀ = 213 VP ₆₀ = 387
Isopropyl benzene						0.0302	N/A	120.2000 N/A N/A	0.0050	0.0001	120.20 Option 2: A=6.963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)						2.2833	N/A	88.1500 N/A N/A	0.1200	0.1217	88.15 Option 1: VP ₅₀ = 1.92 VP ₆₀ = 2.5
Toluene						0.2134	N/A	92.1300 N/A N/A	0.0700	0.0066	92.13 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.2192	N/A	65.3176 N/A N/A	0.6256	0.8506	89.90 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-n)						0.0552	N/A	105.1700 N/A N/A	0.0700	0.0017	106.17 Option 2: A=7.04383, B=1573.267,
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	May	51.25	45.58	56.92	45.40	3.9843	N/A	68.0000 N/A 120.1900	0.0250	0.0001	92.00 Option 4: RVP=8, ASTM Slope=3 Option 2: A=6.905, B=1211.033, C=220.79
Benzene						0.9115	N/A	78.1100 N/A N/A	0.0180	0.0068	78.11 Option 2: A=6.841, B=1201.53, C=222.65
Cyclohexane						0.9510	N/A	84.1600 N/A N/A	0.0024	0.0009	84.16 Option 2: A=6.975, B=1424.255, C=213.21
Ethylbenzene						0.0795	N/A	106.1700 N/A N/A	0.0140	0.0004	106.17 Option 2: A=6.876, B=171.17, C=224.41
Hexane (-n)						1.5166	N/A	86.1700 N/A N/A	0.0100	0.0061	86.17 Option 1: VP ₅₀ = 387 VP ₆₀ = 58
Isooctane						0.4111	N/A	114.2200 N/A N/A	0.0400	0.0068	114.22 Option 2: A=6.963, B=1460.793, C=207.78
Isopropyl benzene						0.0366	N/A	120.2000 N/A N/A	0.0050	0.0001	120.20 Option 1: VP ₅₀ = 2.5 VP ₆₀ = 3.22
Methyl-tert-butyl ether (MTBE)						2.5898	N/A	88.1500 N/A N/A	0.1200	0.1242	88.15 Option 2: A=6.954, B=1344.8, C=219.48
Toluene						0.2499	N/A	92.1300 N/A N/A	0.0700	0.0070	92.13 Option 2: A=7.009, B=1462.266, C=215.11
Unidentified Components						4.6481	N/A	65.2168 N/A N/A	0.6256	0.8461	89.60 Option 2: A=7.04383, B=1573.267,
Xylene (-n)						0.0660	N/A	106.1700 N/A N/A	0.0700	0.0018	106.17 Option 4: RVP=8, ASTM Slope=3 Option 2: A=6.905, B=1211.033, C=220.79
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jun	55.47	49.47	61.48	45.40	3.6909	N/A	68.0000 N/A 120.1900	0.0250	0.0002	92.00 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0287	N/A	78.1100 N/A N/A	0.0180	0.0068	78.11 Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0702	N/A	84.1600 N/A N/A	0.0024	0.0009	84.16 Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0825	N/A	106.1700 N/A N/A	0.0140	0.0005	106.17 Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.8987	N/A	86.1700 N/A N/A	0.0100	0.0062	86.17 Option 2: A=6.876, B=171.17, C=224.41
Isooctane						0.4926	N/A	114.2200 N/A N/A	0.0400	0.0072	114.22 Option 1: VP ₅₀ = 387 VP ₆₀ = 58
Isopropyl benzene						0.0431	N/A	120.2000 N/A N/A	0.0050	0.0001	120.20 Option 2: A=6.963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)						2.8941	N/A	88.1500 N/A N/A	0.1200	0.1273	88.15 Option 1: VP ₅₀ = 2.5 VP ₆₀ = 3.22
Toluene						0.2863	N/A	92.1300 N/A N/A	0.0700	0.0073	92.13 Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.0491	N/A	65.1136 N/A N/A	0.6256	0.8415	89.60 Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-n)						0.0769	N/A	106.1700 N/A N/A	0.0700	0.0020	106.17 Option 2: A=7.04383, B=1573.267,
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jul	58.15	52.19	64.11	45.40	3.9865	N/A	68.0000 N/A 120.1900	0.0250	0.0002	92.00 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.1092	N/A	78.1100 N/A N/A	0.0180	0.0068	78.11 Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1520	N/A	84.1600 N/A N/A	0.0024	0.0010	84.16 Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1017	N/A	106.1700 N/A N/A	0.0140	0.0005	106.17 Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.8217	N/A	88.1700 N/A N/A	0.0100	0.0063	88.17 Option 1: VP ₅₀ = 387 VP ₆₀ = 58
Isooctane						0.5443	N/A	114.2200 N/A N/A	0.0400	0.0076	114.22 Option 2: A=6.963, B=1460.793, C=207.78
Isopropyl benzene						0.0477	N/A	120.2000 N/A N/A	0.0050	0.0001	120.20 Option 2: A=6.954, B=1344.8, C=219.48
Methyl-tert-butyl ether (MTBE)						3.0868	N/A	88.1500 N/A N/A	0.1200	0.1286	88.15 Option 1: VP ₅₀ = 2.5 VP ₆₀ = 3.22

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Toluene	N/A	92.1300	0.0700	0.0076	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	N/A	65.0629	0.6256	0.8362	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	N/A	106.1700	0.0700	0.0021	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8)	N/A	68.0000	0.0250	0.0002	92.00	Option 4: RVP=8, ASTM Slope=3
1,2,4-Trimethylbenzene	N/A	120.1900	0.0250	0.0002	120.19	Option 2: A=7.04383, B=1573.267,
Benzene	N/A	78.1100	0.0180	0.0069	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane	N/A	84.1600	0.0024	0.0010	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene	N/A	106.1700	0.0140	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	N/A	86.1700	0.0100	0.0053	86.17	Option 2: A=6.876, B=171.17, C=24.41
Isobutane	N/A	114.2200	0.0400	0.0075	114.22	Option 1: VP50 = 387 VP60 = 558
Isopropyl benzene	N/A	120.2000	0.0500	0.0001	120.20	Option 2: A=6.963, B=1460.733, C=207.78
Methyl-tert-butyl ether (MTBE)	N/A	88.1500	0.1200	0.1222	88.15	Option 1: VP50 = 2.5 VP60 = 3.22
Toluene	N/A	92.1300	0.0700	0.0075	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	N/A	65.0780	0.6256	0.8398	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	N/A	106.1700	0.0700	0.0020	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8)	Sep	3.5255	N/A	68.0000	92.00	Option 4: RVP=8, ASTM Slope=3
1,2,4-Trimethylbenzene	0.0155	N/A	120.1900	0.0250	120.19	Option 2: A=7.04383, B=1573.267,
Benzene	N/A	78.1100	0.0180	0.0067	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane	N/A	84.1600	0.0024	0.0009	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene	N/A	106.1700	0.0140	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	N/A	86.1700	0.0100	0.0081	86.17	Option 2: A=6.876, B=171.17, C=24.41
Isobutane	N/A	114.2200	0.0400	0.0069	114.22	Option 1: VP50 = 387 VP60 = 558
Isopropyl benzene	N/A	120.2000	0.0500	0.0001	120.20	Option 2: A=6.963, B=1460.733, C=207.78
Methyl-tert-butyl ether (MTBE)	N/A	88.1500	0.1200	0.1258	88.15	Option 1: VP50 = 2.5 VP60 = 3.22
Toluene	N/A	92.1300	0.0700	0.0072	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	N/A	65.1645	0.6256	0.8438	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	N/A	106.1700	0.0700	0.0019	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8)	Oct	3.1635	N/A	68.0000	92.00	Option 4: RVP=8, ASTM Slope=3
1,2,4-Trimethylbenzene	0.0125	N/A	120.1900	0.0250	120.19	Option 2: A=7.04383, B=1573.267,
Benzene	N/A	78.1100	0.0180	0.0064	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane	N/A	84.1600	0.0024	0.0008	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene	N/A	106.1700	0.0140	0.0004	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	N/A	86.1700	0.0100	0.0059	86.17	Option 2: A=6.876, B=171.17, C=24.41
Isobutane	N/A	114.2200	0.0400	0.0080	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene	N/A	120.2000	0.0500	0.0001	120.20	Option 2: A=6.963, B=1460.733, C=207.78
Methyl-tert-butyl ether (MTBE)	N/A	88.1500	0.1200	0.1224	88.15	Option 1: VP40 = .192 VP50 = .25
Toluene	N/A	92.1300	0.0700	0.0067	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	N/A	65.2856	0.6256	0.8433	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	N/A	106.1700	0.0700	0.0018	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8)	Nov	2.8586	N/A	68.0000	92.00	Option 4: RVP=8, ASTM Slope=3
1,2,4-Trimethylbenzene	0.0101	N/A	120.1900	0.0250	120.19	Option 2: A=7.04383, B=1573.267,
Benzene	N/A	78.1100	0.0180	0.0061	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane	N/A	84.1600	0.0024	0.0009	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene	N/A	106.1700	0.0140	0.0004	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	N/A	86.1700	0.0100	0.0057	86.17	Option 2: A=6.876, B=171.17, C=24.41
Isobutane	N/A	114.2200	0.0400	0.0051	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene	N/A	120.2000	0.0500	0.0001	120.20	Option 2: A=6.963, B=1460.733, C=207.78
Methyl-tert-butyl ether (MTBE)	N/A	88.1500	0.1200	0.1224	88.15	Option 1: VP40 = .192 VP50 = .25
Toluene	N/A	92.1300	0.0700	0.0067	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	N/A	65.2856	0.6256	0.8433	89.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	N/A	106.1700	0.0700	0.0018	106.17	Option 2: A=7.009, B=1462.266, C=215.11

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Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Unidentified Components							
Xylene (cm)							
	3.9517	N/A	65.3929	0.6256	0.8540	89.60	106.17
	0.0489	N/A	106.1700	0.0700	0.0016	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Jet Kerosene							
	0.0041	N/A	130.0000	0.0000	0.0074	162.00	Option 1: VP40 = .0041
Benzene	0.9681	N/A	78.1100	0.0000	0.0184	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Ethylbenzene	0.0478	N/A	106.1700	0.0013	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	1.0380	N/A	86.1700	0.0001	0.0158	86.17	Option 2: A=6.878, B=1171.17, C=24.41
Toluene	0.1586	N/A	92.1300	0.0013	0.0641	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	0.0033	N/A	138.3591	0.9942	0.8571	162.55	
Xylene (cm)	0.0395	N/A	106.1700	0.0031	0.0372	106.17	Option 2: A=7.009, B=1462.286, C=215.11

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Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	Emissions Report - Detail Format											
	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):												
Seal Factor A (lb-mole/ft ² -yr):												
Seal Factor B (lb-mole/ft ² -yr):												
Value of Vapor Pressure Function:												
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):												
Tank Diameter (ft):												
Vapor Molecular Weight (lb/lb-mole):												
Product Factor:												
Withdrawal Losses (lb):												
Number of Columns:												
Effective Column Diameter (ft):												
Net Throughput (gal/mo):												
0	0	0	0	0	0	0	0	0	0	0	0	0
1,860,552,000	1,889,523,000	1,900,000	2,668,190,000	1,138,866,000	1,830,069,000	0	0	0	0	0	0	0
0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	
5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	
137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	137,000,000	
66,2265	74,2081	81,9726	87,2983	85,5606	77,7587	68,7396	61,3554	56,0541	49,0541	41,1514	33,1514	
0.0583	0.0634	0.0722	0.0769	0.0754	0.0685	0.0606	0.0541	0.0481	0.0401	0.0300	0.0200	
68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	68,000,000	
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	
200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	200,3000	
173,7603	194,7021	215,0740	229,0471	224,4879	204,0178	180,3540	160,9800	0.3973	0.3973	0.3973	0.3973	
2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	2,948,2300	
0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	
0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	
137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	137,0000	
68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	68,0000	
1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	
315,1918	352,8926	390,6685	413,5519	406,3674	366,8724	324,3193	289,4803	6,8387	6,8387	6,8387	6,8387	
Total Losses (lb):												
Deck Fitting Status												
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed												
Column Vail (24-in. Diam.)/Built-Up Coi./Sliding Cover, Ungasketed												
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed												
Roof Leg or Hanger Well/Adjustable												
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open												
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.												
Stub Drain (1-in. Diam.)/Unbolted Cover, Ungasketed												
Automatic Gauge Float Well/Unbolted Cover, Ungasketed												
Quantity	KFa (lb-mole/yr)	KFb (lb-mole/yr mph ^{0.5})	Deck Fitting Loss Factors									
1	36.00	5.90										
1	47.00	0.00										
1	76.00	0.00										
1	7.90	0.00										
1	12.00	0.00										
1	6.20	1.20										
1	1.20	0.00										
1	14.00	5.40										

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Components					
Gasoline (RVP 8)	660.03	13.77	603.12	1,582.42	2,859.34
1,2,4-Trimethylbenzene	0.10	0.34	0.09	0.23	0.76
Benzene	4.36	0.25	3.99	10.46	19.06
Cyclohexane	0.61	0.03	0.55	1.45	2.65
Ethylbenzene	0.30	0.19	0.27	0.72	1.48
Hexane (-n)	4.03	0.14	3.68	9.65	17.50
Isooctane	4.40	0.55	4.02	10.55	19.53
Isopropyl benzene	0.05	0.07	0.04	0.12	0.28
Methyl-tert-butyl ether (MTBE)	82.57		75.45	197.96	357.64
Toluene	4.67	0.96	4.27	11.20	21.11
Unidentified Components	557.70	8.62	509.62	1,337.09	2,413.03
Xylene (-m)	1.24	0.96	1.13	2.97	6.31
Jet kerosene	0.17	6.12	0.15	0.40	6.84
Benzene	0.00	0.00	0.00	0.00	0.01
Ethylbenzene	0.00	0.01	0.00	0.01	0.02
Hexane (-n)	0.00	0.00	0.00	0.01	0.01
Toluene	0.01	0.01	0.01	0.03	0.05
Unidentified Components	0.14	6.09	0.13	0.34	6.70
Xylene (-m)	0.01	0.02	0.01	0.01	0.05
Total:	660.20	19.90	603.27	1,582.82	2,866.18

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Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification			Quantity
User Identification:	1183002007-A		
City:	Searsport		
State:	Maine		
Company:	Irving Oil Corp		
Type of Tank:	Internal Floating Roof Tank		
Description:	2000 Operations		
Tank Dimensions			
Diameter (ft):	132.00		
Volume (gallons):	5,670,000.00		
Turnovers:	1.42		
Self Supp. Roof? (y/n):	N		
No. of Columns:	8.00		
Eff. Col. Diam. (ft):	1.00		
Paint Characteristics			
Internal Shell Condition:	Light Rust		
Shell Color/Shade:	White/White		
Shell Condition:	Good		
Roof Color/Shade:	White/White		
Roof Condition:	Good		
Rim-Seal System			
Primary Seal:	Vapor-mounted		
Secondary Seal:	None		
Deck Characteristics			
Deck Fitting Category:	Detail		
Deck Type:	Welded		
Deck Fitting/Status			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed			
Automatic Gauge Float Well/Bolted Cover, Gasketed			
Column Well (24-in. Diam.)/Pipe Cal.-Sliding Cover, Gask.			
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gask.			
Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)			

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Max.	Avg.	Min.	Max.	Avg.	Min.				
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jan	35.40	31.29	39.51	45.40	2.4125	N/A	N/A	68.0000	120.1900	0.0250	0.0001	92.00	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene					0.6661	N/A	N/A	78.1100	0.0180	0.0057	78.11	84.16	84.16	Option 2: A=6-905, B=1201.53, C=220.79 Option 2: A=6-841, B=1201.53, C=222.65
Cyclohexane					0.5974	N/A	N/A	84.1600	0.0024	0.0008	106.17	106.17	106.17	Option 2: A=6-975, B=1424.255, C=213.21
Ethylbenzene					0.0435	N/A	N/A	106.1700	0.0140	0.0034	86.17	86.17	86.17	Option 2: A=6-876, B=1171.17, C=224.41
Hexane (-n)					0.6706	N/A	N/A	86.1700	0.0100	0.0048	114.22	114.22	114.22	Option 1: VP40 = 213
Isooctane					0.2130	N/A	N/A	114.2200	0.0400	0.0050	120.20	120.20	120.20	Option 2: A=6-963, B=1460.793, C=207.78
Isopropyl benzene					0.0192	N/A	N/A	120.2000	0.0050	0.0001	120.20	120.20	120.20	Option 1: VP40 = 1.92
Methyl-tert-butyl ether (MTBE)					1.9200	N/A	N/A	88.1500	0.1200	0.1282	88.15	92.13	92.13	Option 2: A=6-954, B=1344.8, C=219.48
Toluene					0.1464	N/A	N/A	92.1300	0.0700	0.0700	92.13	92.13	92.13	Option 2: A=6-954, B=1462.286, C=215.11
Unidentified Components					3.3128	N/A	N/A	65.2468	0.6256	0.8464	89.60	89.60	89.60	Option 2: A=7-009, B=1462.286, C=215.11
Xylenes (-n)					0.0360	N/A	N/A	106.1700	0.0700	0.0014	106.17	106.17	106.17	Option 2: A=7-04383, B=1573.267, C=208.56
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Feb	36.87	32.28	41.45	45.40	2.4916	N/A	N/A	68.0000	120.1900	0.0250	0.0001	92.00	Option 4: RVP=8, ASTM Slope=3 Option 2: A=6-905, B=1201.033, C=220.79
Benzene					0.5926	N/A	N/A	78.1100	0.0180	0.0058	78.11	84.16	84.16	Option 2: A=6-841, B=1201.53, C=222.65
Cyclohexane					0.6247	N/A	N/A	84.1600	0.0024	0.0008	106.17	106.17	106.17	Option 2: A=6-975, B=1424.255, C=213.21
Ethylbenzene					0.0462	N/A	N/A	106.1700	0.0140	0.0054	86.17	86.17	86.17	Option 2: A=6-876, B=1171.17, C=224.41
Hexane (-n)					1.0131	N/A	N/A	86.1700	0.0100	0.0055	114.22	114.22	114.22	Option 1: VP40 = 213
Isooctane					0.2130	N/A	N/A	114.2200	0.0400	0.0400	120.20	120.20	120.20	Option 2: A=6-963, B=1460.793, C=207.78
Isopropyl benzene					0.0204	N/A	N/A	120.2000	0.0050	0.0001	120.20	120.20	120.20	Option 1: VP40 = 1.92
Toluene					1.9200	N/A	N/A	88.1500	0.1200	0.1261	88.15	92.13	92.13	Option 2: A=6-954, B=1344.8, C=219.48
Unidentified Components					0.1541	N/A	N/A	92.1300	0.0700	0.0059	89.60	89.60	89.60	Option 2: A=7-009, B=1462.286, C=215.11
Xylenes (-n)					3.4332	N/A	N/A	65.3275	0.6256	0.8503	106.17	106.17	106.17	Option 2: A=7-04383, B=1573.267, C=208.56
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Mar	41.56	37.07	46.06	45.40	2.7589	N/A	N/A	68.0000	120.1900	0.0250	0.0001	92.00	Option 4: RVP=8, ASTM Slope=3 Option 2: A=6-905, B=1201.033, C=220.79
Benzene					0.5843	N/A	N/A	78.1100	0.0180	0.0060	78.11	84.16	84.16	Option 2: A=6-841, B=1201.53, C=222.65
Cyclohexane					0.7189	N/A	N/A	84.1600	0.0024	0.0008	106.17	106.17	106.17	Option 2: A=6-975, B=1424.255, C=213.21
Ethylbenzene					0.0554	N/A	N/A	106.1700	0.0140	0.0004	86.17	86.17	86.17	Option 1: VP40 = 213 VP50 = .387
Hexane (-n)					1.1593	N/A	N/A	88.1500	0.0100	0.0057	114.22	114.22	114.22	Option 2: A=6-876, B=1171.17, C=224.41
Isooctane					0.2402	N/A	N/A	114.2200	0.0400	0.0046	120.20	120.20	120.20	Option 1: VP40 = 213 VP50 = .387
Isopropyl benzene					0.0248	N/A	N/A	120.2000	0.0050	0.0001	120.20	120.20	120.20	Option 2: A=6-963, B=1460.793, C=207.78
Toluene					2.0105	N/A	N/A	88.1500	0.1200	0.1183	88.15	92.13	92.13	Option 1: VP40 = 1.92 VP50 = .25
Unidentified Components					0.1811	N/A	N/A	92.1300	0.0700	0.0062	92.13	92.13	92.13	Option 2: A=6-954, B=1344.8, C=219.48
Xylenes (-n)					3.8204	N/A	N/A	65.4359	0.6256	0.8500	89.60	89.60	89.60	Option 2: A=7-009, B=1462.286, C=215.11
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Apr	46.44	41.38	51.49	45.40	3.0606	N/A	N/A	68.0000	120.1900	0.0250	0.0001	92.00	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene					0.7918	N/A	N/A	78.1100	0.0180	0.0063	78.11	84.16	84.16	Option 2: A=6-905, B=1201.53, C=220.79
Cyclohexane					0.9289	N/A	N/A	84.1600	0.0024	0.0009	106.17	106.17	106.17	Option 2: A=6-841, B=1201.53, C=222.65
Ethylbenzene					0.0868	N/A	N/A	106.1700	0.0140	0.0004	86.17	86.17	86.17	Option 2: A=6-975, B=1424.255, C=213.21
Hexane (-n)					1.3292	N/A	N/A	88.1700	0.0100	0.0059	114.22	114.22	114.22	Option 1: VP40 = 213 VP50 = .387
Isooctane					0.3250	N/A	N/A	114.2200	0.0400	0.0067	114.22	114.22	114.22	Option 2: A=6-963, B=1460.793, C=207.78
Methyl-tert-butyl ether (MTBE)					0.0302	N/A	N/A	120.2000	0.0050	0.0001	120.20	120.20	120.20	Option 1: VP40 = 1.92 VP50 = .25
Unidentified Components					2.2933	N/A	N/A	88.1500	0.1200	0.1217				Option 2: A=6-954, B=1344.8, C=219.48

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Toluene	0.2134	N/A	92.13	Option 2: A=6-954, B=1-344.8, C=219.48
Unidentified Components	4.2192	N/A	89.60	Option 2: A=7-009, B=1-462.266, C=215.11
Xylene (-m)	0.0652	N/A	106.17	Option 2: A=7-009, B=1-462.266, C=215.11
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	51.25	45.58	45.40	92.00 Option 4: RVP=8, ASTM Slope=-3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	0.9115	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79 Option 2: A=6-841, B=1-201.53, C=222.65
Cyclohexane	0.9510	N/A	92.00	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Ethylbenzene	0.0795	N/A	106.17	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Hexane (-n)	1.5166	N/A	106.17	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Isooctane	0.4111	N/A	114.2200	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Isopropyl benzene	0.0366	N/A	120.2000	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Methyl-tert-butyl ether (MTBE)	2.5899	N/A	88.1500	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Toluene	0.2499	N/A	92.1300	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Unidentified Components	4.6481	N/A	65.2166	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Xylene (-m)	0.0660	N/A	106.1700	92.00 Option 2: A=6-841, B=1-201.53, C=222.65
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	55.47	49.47	61.48	92.00 Option 4: RVP=8, ASTM Slope=-3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.0287	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Cyclohexane	1.0702	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Ethylbenzene	0.0925	N/A	106.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Hexane (-n)	1.9887	N/A	98.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isooctane	0.4926	N/A	114.2200	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isopropyl benzene	0.0431	N/A	120.2000	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Methyl-tert-butyl ether (MTBE)	2.8841	N/A	88.1500	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Toluene	0.2863	N/A	92.1300	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Unidentified Components	5.0491	N/A	65.1186	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Xylene (-m)	0.0769	N/A	106.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	58.15	52.19	64.11	92.00 Option 4: RVP=8, ASTM Slope=-3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.1092	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Cyclohexane	1.1520	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Ethylbenzene	0.1017	N/A	106.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Hexane (-n)	1.8232	N/A	88.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isooctane	0.5443	N/A	114.2200	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isopropyl benzene	0.0477	N/A	120.2000	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Methyl-tert-butyl ether (MTBE)	3.0868	N/A	88.1500	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Toluene	0.3116	N/A	92.1300	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Unidentified Components	5.3203	N/A	65.0629	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Xylene (-m)	0.0847	N/A	106.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	57.30	51.62	62.97	92.00 Option 4: RVP=8, ASTM Slope=-3 Option 2: A=7-04383, B=1573.267, C=208.56
Benzene	1.0829	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Cyclohexane	1.1253	N/A	92.00	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Ethylbenzene	0.0887	N/A	106.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Hexane (-n)	1.7826	N/A	86.1700	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isooctane	0.5278	N/A	114.2200	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Isopropyl benzene	0.0462	N/A	120.2000	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Methyl-tert-butyl ether (MTBE)	3.0253	N/A	88.1500	92.00 Option 2: A=6-905, B=1-211.033, C=220.79
Toluene	0.3033	N/A	92.1300	92.00 Option 2: A=6-905, B=1-211.033, C=220.79

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank - (Continued)

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	224.8420	232.7279	260.4165	282.4148	327.8570	361.9401	385.4550	377.7524	343.3240	307.052	0.5867	0.5056
Seal Factor A (lb-mole/ft ² yr):	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000	6.7000
Seal Factor B (lb-mole/ft ² yr):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Value of Vapor Pressure Function:	0.0448	0.0464	0.0520	0.0583	0.0654	0.0722	0.0799	0.0754	0.0855	0.0901	0.0001	0.0001
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):	241.25	249.16	275.89	3.0606	3.3843	3.6908	3.8965	3.8288	3.5255	3.0043	0.0037	0.0031
Tank Diameter (ft):	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000
Vapor Molecular Weight (lb/lb-mole):	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Number of Columns:	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000	8.0000
Effective Column Diameter (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Net Throughput (gal/mo):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Shell Clinging Factor (lb/lb/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000
Deck Fitting Losses (lb):	18.7864	19.4729	21.7897	24.4671	27.4158	30.2845	32.2520	31.6100	28.7276	0.0590	0.0498	0.0423
Value of Vapor Pressure Function:	0.0448	0.0464	0.0520	0.0583	0.0654	0.0722	0.0789	0.0754	0.0885	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	130.0000	130.0000	130.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Roof Fitting Loss Fact. (lb-mole/yr):	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000	74.0000
Deck Seam Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Loss per Unit Length	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Factor (lb-mole/ft ² yr):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length Factor(ft ² /sqft):	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000	132.0000
Tank Diameter (ft):	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000
Vapor Molecular Weight (lb/lb-mole):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Product Factor:												

Deck Fitting Loss Factors	KFa (lb-mole/ft ²)	KFr (lb-mole/ft ² min)	Losses (lb)
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2	0.00	0.00
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	0.00	0.00
Column Wall (24-in. Diam.)/Pipe Col./Sliding Cover, Gasketed	1	0.00	0.00
Sample Pipe or Well (24-in. Diam.)/Slotted Pipe-Sliding Cover, Gasketed	1	0.00	0.00
Total Losses (lb):	243.4384	252.2008	282.2062
	316.8819	355.0728	392.2246
			417.7070
			409.3924
			372.0617
			7.9296
			0.6466
			8.8225

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

		Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Components						
Gasoline (RVP 8)		2,806.37	0.00	234.82	0.00	3,041.19
1,2,4-Trimethylbenzene		0.39	0.00	0.03	0.00	0.43
Benzene		18.22	0.00	1.52	0.00	19.74
Cyclohexane		2.54	0.00	0.21	0.00	2.75
Ethylbenzene		1.23	0.00	0.10	0.00	1.33
Hexane (-n)		16.87	0.00	1.41	0.00	18.28
Isooctane		17.93	0.00	1.50	0.00	19.43
Isopropyl benzene		0.20	0.00	0.02	0.00	0.22
Methyl-tert-butyl ether (MTBE)		352.54	0.00	29.50	0.00	382.04
Toluene		19.36	0.00	1.62	0.00	20.99
Unidentified Components		2,371.99	0.00	198.47	0.00	2,570.46
Xylene (-n)		5.10	0.00	0.43	0.00	5.53
Distillate fuel oil no. 2		1.81	15.44	0.15	0.00	17.40
1,2,4-Trimethylbenzene		0.07	0.15	0.01	0.00	0.23
Benzene		0.00	0.00	0.00	0.00	0.00
Ethylbenzene		0.01	0.00	0.00	0.00	0.01
Hexane (-n)		0.00	0.00	0.00	0.00	0.00
Toluene		0.04	0.00	0.00	0.00	0.05
Unidentified Components		1.58	15.23	0.13	0.00	16.95
Xylene (-n)		0.10	0.04	0.01	0.00	0.15
Total:			2,808.18	15.44	234.97	3,058.58

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification		Quantity
User Identification:	1183002008-B	
City:	Searsport	
State:	Maine	
Company:	Irving Oil Corp	
Type of Tank:	Internal Floating Roof Tank	
Description:	2000 Operations	
Tank Dimensions		
Diameter (ft):	132.00	
Volume (gallons):	5,670,000.00	
Turnovers:	0.89	
Self Sup. Roof? (y/n):	N	
No. of Columns:	8.00	
Eff. Col. Diam. (ft):	1.00	
Paint Characteristics		
Internal Shell Condition:	Light Rust	
Shell Color/Shade:	White/White	
Shell Condition:	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Rim-Seal System		
Primary Seal:	Vapor-mounted	
Secondary Seal:	None	
Deck Characteristics		
Deck Fitting Category:	Detailed	
Deck Type:	Welded	
Deck Fitting/Status		
Vacuum Breaker (10-in. Diam.)	Weighted Mech. Actuation, Gask.	
Sample Pipe or Well (24-in. Diam.)	Slit Fabric Seal 10% Open	
Roof Leg or Hanger Well/Adjustable		1
Column Well (24-in. Diam.)	Built-Up Col.-Sliding Cover, Ungask.	1
Automatic Gauge Float Well/Unbolted Cover	Ungasketed	1
Access Hatch (24-in. Diam.)	Unbolted Cover, Ungasketed	2
Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)		
6/18/01 4:26:37 PM		

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations			
		Min.	Max.	Min.	Max.						
		Avg.	Avg.	Avg.	Avg.						
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jan	35.40	31.29	39.51	45.40	2.4125 0.0072	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene				0.5661	N/A	N/A	78.1100	0.0180	78.11	Option 2: A=6.905, B=1211.033, C=220.79	
Cyclohexane				0.5674	N/A	N/A	84.1600	0.0024	84.16	Option 2: A=6.841, B=1201.53, C=222.66	
Ethylbenzene				0.0436	N/A	N/A	108.1700	0.0140	108.17	Option 2: A=6.975, B=1424.255, C=213.21	
Hexane (-n)				0.9706	N/A	N/A	85.1700	0.0100	86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Isooctane				0.2130	N/A	N/A	114.2200	0.0400	114.22	Option 2: A=6.863, B=1460.793, C=207.78	
Isopropyl benzene				0.0192	N/A	N/A	120.2000	0.0050	120.20	Option 2: A=6.863, B=1460.793, C=207.78	
Methyl-tert-butyl ether (MTBE)				1.9200	N/A	N/A	88.1500	0.1200	88.15	Option 1: VP40 = 1.92	
Toluene				0.1464	N/A	N/A	92.1300	0.057	92.13	Option 2: A=6.954, B=1344.8, C=219.48	
Unidentified Components				3.3128	N/A	N/A	65.2468	0.6256	89.60	89.60	
Xylene (-m)				0.0360	N/A	N/A	106.7700	0.0700	106.17	Option 2: A=7.009, B=1462.266, C=215.11	
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Feb	36.87	32.28	41.45	45.40	2.4916 0.0076	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene				0.5626	N/A	N/A	78.1100	0.0180	78.11	Option 2: A=6.905, B=1211.033, C=220.79	
Cyclohexane				0.6247	N/A	N/A	84.1600	0.0024	84.16	Option 2: A=6.841, B=1201.53, C=222.66	
Ethylbenzene				0.0462	N/A	N/A	108.1700	0.0140	108.17	Option 2: A=6.975, B=1424.255, C=213.21	
Hexane (-n)				1.0131	N/A	N/A	88.1700	0.0100	88.17	Option 2: A=6.876, B=1171.17, C=224.41	
Isooctane				0.2130	N/A	N/A	114.2200	0.0400	114.22	Option 1: VP40 = 213	
Isopropyl benzene				0.0204	N/A	N/A	120.2000	0.0050	120.20	Option 2: A=6.863, B=1460.793, C=207.78	
Toluene				1.9200	N/A	N/A	88.1500	0.1200	88.15	Option 1: VP40 = 1.92	
Unidentified Components				0.1541	N/A	N/A	92.1300	0.0700	92.13	Option 2: A=6.954, B=1344.8, C=219.48	
Xylene (-m)				3.4532	N/A	N/A	65.3275	0.6256	89.60	89.60	
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Mar	41.56	37.07	46.06	45.40	2.7589 0.0094	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene				0.6843	N/A	N/A	78.1100	0.0180	78.11	Option 2: A=6.905, B=1211.033, C=220.79	
Cyclohexane				0.7189	N/A	N/A	84.1600	0.0024	84.16	Option 2: A=6.841, B=1201.53, C=222.66	
Ethylbenzene				0.0554	N/A	N/A	108.1700	0.0140	108.17	Option 2: A=6.975, B=1424.255, C=213.21	
Hexane (-n)				1.1993	N/A	N/A	88.1700	0.0100	88.17	Option 2: A=6.876, B=1171.17, C=224.41	
Isooctane				0.2402	N/A	N/A	114.2200	0.0400	114.22	Option 1: VP40 = 213 VP50 = .387	
Isopropyl benzene				0.0248	N/A	N/A	120.2000	0.0050	120.20	Option 1: VP40 = 1.92 VP50 = 2.5	
Toluene				2.0106	N/A	N/A	88.1500	0.1200	88.15	Option 2: A=6.863, B=1460.793, C=207.78	
Unidentified Components				1.9111	N/A	N/A	92.1300	0.0700	92.13	Option 2: A=6.954, B=1344.8, C=219.48	
Xylene (-m)				3.8204	N/A	N/A	65.4389	0.6256	89.60	89.60	
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Apr	46.44	41.38	51.49	45.40	3.0606 0.0116	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	Option 4: RVP=8, ASTM Slope=3 Option 2: A=7.04383, B=1573.267, C=208.56
Benzene				0.7918	N/A	N/A	78.1100	0.0180	78.11	Option 2: A=6.905, B=1211.033, C=220.79	
Cyclohexane				0.8289	N/A	N/A	84.1600	0.0024	84.16	Option 2: A=6.841, B=1201.53, C=222.66	
Ethylbenzene				0.0668	N/A	N/A	108.1700	0.0140	108.17	Option 2: A=6.975, B=1424.255, C=213.21	
Hexane (-n)				1.3292	N/A	N/A	86.1700	0.0100	86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Isooctane				0.3250	N/A	N/A	114.2200	0.0400	114.22	Option 1: VP40 = .213 VP50 = .387	
Toluene				0.0302	N/A	N/A	120.2000	0.0050	120.20	Option 2: A=6.863, B=1460.793, C=207.78	
Unidentified Components				2.2833	N/A	N/A	88.1500	0.1200	88.15	Option 1: VP40 = 1.92 VP50 = 2.5	
Isopropyl benzene											
Methyl-tert-butyl ether (MTBE)											

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Toluene	0.2134	N/A	92.1300	0.0700	0.0066	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	4.2192	N/A	65.3176	0.6256	0.8506	69.60	Option 2: A=7.009, B=1462.266, C=215.11
Xylylene (-n)	0.0552	N/A	106.1700	0.0700	0.0017	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	May	51.25	45.58	56.92	45.40	3.3845	N/A
Benzene	0.9115	N/A	N/A	N/A	0.0180	0.0066	78.11
Cyclohexane	0.9510	N/A	N/A	N/A	0.0024	0.0059	84.16
Ethylbenzene	0.0795	N/A	N/A	N/A	0.0140	0.0004	106.17
Hexane (-n)	1.5166	N/A	N/A	N/A	0.0100	0.0061	86.17
Isooctane	0.4111	N/A	N/A	N/A	0.0400	0.0066	114.22
Isopropyl benzene	0.0366	N/A	N/A	N/A	0.0050	0.0001	120.20
Methyl-tert-butyl ether (MTBE)	2.5899	N/A	N/A	N/A	0.1200	0.1242	88.15
Toluene	0.2499	N/A	N/A	N/A	0.0700	0.0070	92.13
Unidentified Components	4.6481	N/A	N/A	N/A	0.8256	0.8461	89.60
Xylylene (-n)	0.0660	N/A	N/A	N/A	0.0700	0.0018	106.17
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jun	55.47	45.47	61.48	45.40	3.6509	N/A
Benzene	1.0287	N/A	N/A	N/A	0.0180	0.0068	78.11
Cyclohexane	1.0702	N/A	N/A	N/A	0.0024	0.0009	84.16
Ethylbenzene	0.0925	N/A	N/A	N/A	0.0140	0.0005	106.17
Hexane (-n)	1.6987	N/A	N/A	N/A	0.0100	0.0062	86.17
Isooctane	0.4626	N/A	N/A	N/A	0.0400	0.0072	114.22
Isopropyl benzene	0.0431	N/A	N/A	N/A	0.0050	0.0001	120.20
Methyl-tert-butyl ether (MTBE)	2.6841	N/A	N/A	N/A	0.1200	0.1273	88.15
Toluene	0.2863	N/A	N/A	N/A	0.0700	0.0073	92.13
Unidentified Components	5.0491	N/A	N/A	N/A	0.6256	0.8415	89.60
Xylylene (-n)	0.0769	N/A	N/A	N/A	0.0700	0.0020	106.17
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Jul	58.15	52.19	64.11	45.40	3.8565	N/A
Benzene	1.1092	N/A	N/A	N/A	0.0250	0.0002	92.00
Cyclohexane	1.1520	N/A	N/A	N/A	0.0180	0.0069	78.11
Ethylbenzene	0.1017	N/A	N/A	N/A	0.0024	0.0010	84.16
Hexane (-n)	1.8232	N/A	N/A	N/A	0.0140	0.0065	106.17
Isooctane	0.5643	N/A	N/A	N/A	0.0400	0.0063	86.17
Isopropyl benzene	0.0477	N/A	N/A	N/A	0.0050	0.0001	114.22
Methyl-tert-butyl ether (MTBE)	3.0668	N/A	N/A	N/A	0.1200	0.1286	88.15
Toluene	0.3116	N/A	N/A	N/A	0.0700	0.0076	92.13
Unidentified Components	5.3203	N/A	N/A	N/A	0.6256	0.8392	89.60
Xylylene (-n)	0.0847	N/A	N/A	N/A	0.0700	0.0021	106.17
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Aug	57.30	51.62	62.97	45.40	3.8298	N/A
Benzene	1.0829	N/A	N/A	N/A	0.0250	0.0002	92.00
Cyclohexane	1.1553	N/A	N/A	N/A	0.0180	0.0069	78.11
Ethylbenzene	0.0887	N/A	N/A	N/A	0.0024	0.0010	84.16
Hexane (-n)	1.7826	N/A	N/A	N/A	0.0140	0.0065	106.17
Isooctane	0.5278	N/A	N/A	N/A	0.0400	0.0063	86.17
Isopropyl benzene	0.0462	N/A	N/A	N/A	0.0050	0.0001	114.22
Methyl-tert-butyl ether (MTBE)	3.0253	N/A	N/A	N/A	0.1200	0.1282	88.15
Toluene	0.3033	N/A	N/A	N/A	0.0700	0.0075	92.13

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Unidentified Components Xylene (-m)		5.2322 0.0821	N/A N/A	65.0780 106.1700	0.6256 0.0700	0.8399 0.0020	89.60 106.17	Option 2: A=7.009, B=1462.266, C=215.11	
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Sep	53.23 47.96	58.50 45.40	3.5255 0.0155	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.9851 1.0055 0.0854 1.6000	N/A N/A N/A N/A	78.1100 84.1600 106.1700 114.2200	0.0180 0.0024 0.0140 0.0400	0.0087 0.0039 0.0005 0.0089	78.11 84.16 106.17 114.22	Option 4: RVP=8, ASTM Slope=3, C=220.79 Option 2: A=6.905, B=1211.033, C=220.85 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.878, B=1171.17, C=224.41 Option 1: VP50 = .387 VP60 = .58 Option 2: A=6.963, B=1460.735, C=207.78 Option 1: VP50 = 2.5 VP60 = 3.22 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.009, B=1462.266, C=215.11	
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components Xylene (-n)		0.0395 0.27327 0.2665 4.8323 0.0710	N/A N/A N/A N/A N/A	88.1500 92.1300 65.1645 65.1645 106.1700	0.0050 0.0700 0.0400 0.0436 0.0700	0.0001 0.0072 0.0089 0.0019	120.20 88.15 92.13 89.60 106.17	120.20 88.15 92.13 89.60 106.17	
Gasoline (RVP 8) 1,2,4-Trimethylbenzene	Oct	48.01 43.23	52.78 45.40	3.1635 0.0125	N/A N/A	68.0000 120.1900	0.0250 0.0001	92.00 120.19	
Benzene Cyclohexane Ethylbenzene Hexane (-n)		0.8294 0.8673 0.0706 1.3882	N/A N/A N/A N/A	78.1100 84.1600 106.1700 114.2200	0.0180 0.0024 0.0140 0.0100	0.0084 0.0039 0.0004 0.0059	78.11 84.16 106.17 114.22	Option 4: RVP=8, ASTM Slope=3, C=220.79 Option 2: A=6.905, B=1211.033, C=220.85 Option 2: A=6.841, B=1201.53, C=222.65 Option 2: A=6.975, B=1424.255, C=213.21 Option 2: A=6.876, B=1171.17, C=224.41 Option 1: VP40 = 213 VP50 = .387 Option 2: A=6.963, B=1460.735, C=207.78 Option 1: VP40 = 1.92 VP50 = 2.5 Option 2: A=6.954, B=1344.8, C=219.48 Option 2: A=7.005, B=1462.266, C=215.11	
Isooctane Isopropyl benzene Methyl-tert-butyl ether (MTBE) Toluene Unidentified Components Xylene (-n)		0.5523 0.0322 2.3845 0.2248 4.3561 0.0585	N/A N/A N/A N/A N/A N/A	88.1500 106.1700 92.1300 65.2898 106.1700 106.1700	0.0050 0.0700 0.1200 0.0637 0.0700 0.0700	0.0001 0.0124 0.0067 0.0495 0.0018	120.20 88.15 92.13 89.60 106.17 106.17	120.20 88.15 92.13 89.60 106.17 106.17	
Distillate fuel oil no. 2 1,2,4-Trimethylbenzene	Nov	43.22	39.55	46.89 45.40	0.0037 0.0101	N/A N/A	130.0000 120.1900	0.0100 0.0400	
Benzene Ethylbenzene Hexane (-n)		0.0590 1.2149 0.1916 0.0032 0.0489	N/A N/A N/A N/A N/A	78.1100 106.1700 88.1500 92.1300 134.3410	0.0000 0.0001 0.0000 0.0003 0.0000	0.0023 0.0030 0.0024 0.0242 0.0580	120.19 106.17 88.15 92.13 106.17	120.19 106.17 88.15 92.13 106.17	
Toluene Unidentified Components Xylene (-n)		0.0031 0.0079	N/A N/A	130.0000 120.1900	0.0100 0.0370	0.0370	120.19	120.19	
Distillate fuel oil no. 2 1,2,4-Trimethylbenzene	Dec	37.70	34.02	41.39 45.40	0.0031 0.0079	N/A N/A	78.1100 106.1700 88.1500 92.1300 134.1368	0.0000 0.0001 0.0000 0.0003 0.0029	78.11 106.17 88.15 92.13 106.17
Benzene Ethylbenzene Hexane (-n)		0.6081 0.0478 1.0380 0.1586 0.0027 0.0395	N/A N/A N/A N/A N/A N/A	106.1700 134.3410 134.3410 106.1700	0.0000 0.0001 0.0003 0.0000 0.0002 0.0029	0.0023 0.0029 0.0005 0.0027 0.0034	78.11 106.17 88.15 92.13 106.17	78.11 106.17 88.15 92.13 106.17	
Toluene Unidentified Components Xylene (-n)									

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	Deck Fitting Loss Factors											
	Quantity	KFa (lb-mole/yr mph ²)	KFb (lb-mole/yr mph ²)	Losses (lb)								
Rim Seal Losses (lb):												
Seal Factor A (lb-mole/ft ² yr):												
Seal Factor B (lb-mole/ft ² yr):												
Value of Vapor Pressure Function:												
Vapor Pressure at Daily Average Liquid												
Surface Temperature (°F):												
Tank Diameter (ft):												
Vapo Molecular Weight (lb/lb-mole):												
Product Factor:												
Withdrawal Losses (lb):												
Number of Columns:												
Effective Column Diameter (ft):												
Net Throughput (gal/min):												
Shell Clingage Factor (lb/l ² /000 sqft):												
Average Organic Liquid Density (lb/gal):												
Tank Diameter (ft):												
Deck Fitting Losses (lb):												
Value of Vapor Pressure Function:												
Vapo Molecular Weight (lb/lb-mole):												
Product Factor:												
Tot. Rof Fitting Loss Fact. (lb-mole/yr):												
Deck Seam Losses (lb):												
Deck Seam Length (ft):												
Deck Seam Loss per Unit Length												
Factor (lb-mole/ft ² yr):												
Tank Diameter (ft):												
Vapo Molecular Weight (lb/lb-mole):												
Product Factor:												
Total Losses (lb):	265.0542	274.5947	307.2643	345.0190	386.6011	427.0517	454.7968	445.7440	405.0984	358.1115	2.5521	8.4568

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 8)	3,109.88	0.00	559.46	0.00	3,669.34
1,2,4-Trimethylbenzene	0.43	0.00	0.08	0.00	0.51
Benzene	20.15	0.00	3.63	0.00	23.78
Cyclohexane	2.81	0.00	0.50	0.00	3.31
Ethylbenzene	1.36	0.00	0.24	0.00	1.60
Hexane (-n)	18.67	0.00	3.36	0.00	22.03
Isooctane	19.75	0.00	3.55	0.00	23.31
Isopropyl benzene	0.22	0.00	0.04	0.00	0.26
Methyl-tert-butyl ether (MTBE)	389.69	0.00	70.10	0.00	459.79
Toluene	21.41	0.00	3.85	0.00	25.26
Unidentified Components	2,629.76	0.00	473.08	0.00	3,102.84
Xylene (-n)	5.63	0.00	1.01	0.00	6.64
Distillate fuel oil no. 2	1.10	9.71	0.20	0.00	11.01
1,2,4-Trimethylbenzene	0.04	0.10	0.01	0.00	0.15
Benzene	0.00	0.00	0.00	0.00	0.00
Ethylbenzene	0.00	0.00	0.00	0.00	0.01
Hexane (-n)	0.00	0.00	0.00	0.00	0.00
Toluene	0.03	0.00	0.00	0.00	0.03
Unidentified Components	0.97	9.58	0.17	0.00	10.72
Xylene (-n)	0.06	0.03	0.01	0.00	0.10
Total:	3,110.98	9.71	559.65	0.00	3,680.34

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002009
City: Searsport
State: Maine
Company: Irving Oil Corp
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 40.00
Diameter (ft): 140.00
Liquid Height (ft): 40.00
Avg. Liquid Height (ft): 20.00
Volume (gallons): 4,620,000.00
Turnovers: 4.56
Net Throughput (gal/yr): 21,056,020.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 4.38
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf Temperatures (deg F)			Liquid Bulk Temp (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Avg.	Max.	Min.	Avg.	Max.	Min.				
Distillate fuel oil no. 2	Jan	39.52	33.27	45.76	48.46	48.46	48.46	0.0031	0.0040	130.0000	0.0100	0.0402	188.00	Option 1: VP=0 = .0031 Option 2: A=7-04383, B=1573.267, C=208.86
1,2,4-Trimethylbenzene								0.0086	0.0113	120.1900				
Benzene								0.6430	0.5296	0.7762	78.1100	0.0000	0.0024	78.11
Ethylbenzene								0.0512	0.0491	0.0650	106.1700	0.0001	0.0031	106.17
Hexane (-n)								0.9118	1.3045	0.8657	86.1700	0.0000	0.0035	86.17
Toluene								0.689	0.1358	0.2087	92.1300	0.0003	0.0252	92.13
Unidentified Components								0.0027	0.0024	0.0025	134.4854	0.9866	0.8713	189.60
Xylene (-m)								0.0424	0.0331	0.0338	106.1700	0.0029	0.0573	106.17
Distillate fuel oil no. 2	Feb	42.16	34.40	49.91	48.46	48.46	48.46	0.0035	0.0031	130.0000	0.0100	0.0446	188.00	Option 5: A=12.101, B=8907 Option 2: A=7-04383, B=1573.267, C=208.86
1,2,4-Trimethylbenzene								0.0097	0.0086	0.0135	120.1900	0.0100	0.0397	120.19
Benzene								0.6968	0.5487	0.8769	78.1100	0.0000	0.0023	78.11
Ethylbenzene								0.0567	0.0420	0.0757	106.1700	0.0001	0.0030	106.17
Hexane (-n)								1.1791	0.9427	1.4626	86.1700	0.0000	0.0005	86.17
Toluene								0.848	0.1413	0.2393	92.1300	0.0003	0.0243	92.13
Unidentified Components								0.0030	0.0027	0.0028	134.3313	0.9868	0.8744	189.60
Xylene (-m)								0.0469	0.0346	0.0628	106.1700	0.0029	0.0558	106.17
Distillate fuel oil no. 2	Mar	48.20	39.34	57.05	48.46	48.46	48.46	0.0044	0.0031	130.0000	0.0100	0.0417	188.00	Option 5: A=12.101, B=8907 Option 2: A=7-04383, B=1573.267, C=208.86
1,2,4-Trimethylbenzene								0.0126	0.0085	0.0181	120.1900	0.0100	0.0417	120.19
Benzene								0.8340	0.6395	1.0756	78.1100	0.0000	0.0022	78.11
Ethylbenzene								0.0711	0.0509	0.0879	106.1700	0.0001	0.0031	106.17
Hexane (-n)								1.3954	1.0881	1.7713	86.1700	0.0005	0.0241	86.17
Toluene								0.2262	0.1679	0.3010	92.1300	0.0003	0.0241	92.13
Unidentified Components								0.0038	0.0033	0.0035	134.3847	0.9868	0.8747	189.60
Xylene (-m)								0.0580	0.0421	0.0814	106.1700	0.0029	0.0568	106.17
Distillate fuel oil no. 2	Apr	54.16	43.78	64.54	48.46	48.46	48.46	0.0053	0.0037	130.0000	0.0100	0.0437	188.00	Option 5: A=12.101, B=8907 Option 2: A=7-04383, B=1573.267, C=208.86
1,2,4-Trimethylbenzene								0.0161	0.0104	0.0245	120.1900	0.0100	0.0437	120.19
Benzene								0.9911	0.7317	1.3229	78.1100	0.0000	0.0021	78.11
Ethylbenzene								0.0603	0.0603	0.1269	106.1700	0.0001	0.0031	106.17
Hexane (-n)								1.6404	1.2343	2.1508	86.1700	0.0000	0.0004	86.17
Toluene								0.2746	0.1953	0.3797	92.1300	0.0003	0.0238	92.13
Unidentified Components								0.0046	0.0040	0.0042	134.4328	0.9868	0.8691	189.60
Xylene (-m)								0.0734	0.0499	0.1058	106.1700	0.0029	0.0577	106.17
Distillate fuel oil no. 2	May	60.08	48.11	72.05	48.46	48.46	48.46	0.0065	0.0043	130.0000	0.0100	0.0456	188.00	Option 5: A=12.101, B=8907 Option 2: A=7-04383, B=1573.267, C=208.86
1,2,4-Trimethylbenzene								0.0205	0.0125	0.0327	120.1900	0.0100	0.0456	120.19
Benzene								1.1705	0.8318	1.6167	78.1100	0.0000	0.0021	78.11
Ethylbenzene								0.1088	0.0709	0.1632	106.1700	0.0001	0.0031	106.17
Hexane (-n)								1.9175	1.3919	2.5963	86.1700	0.0004	0.0026	86.17
Toluene								0.3310	0.2255	0.4756	92.1300	0.0003	0.0236	92.13
Unidentified Components								0.0056	0.0048	0.0050	134.4755	0.9868	0.8691	189.60
Xylene (-m)								0.0906	0.0588	0.1364	106.1700	0.0029	0.0585	106.17
Distillate fuel oil no. 2	Jun	64.97	52.07	77.87	48.46	48.46	48.46	0.0076	0.0050	130.0000	0.0115	0.0456	188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank - (Continued)

0.0249	0.0148	0.0406	120.1900	0.0100	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.3363	0.9333	1.8792	78.1100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1288	0.0819	0.970	106.1700	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.1743	1.5506	2.9603	86.1700	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.3847	0.2567	0.5631	92.1300	0.0003	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0065	0.0056	0.0058	134.5075	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1074	0.0680	0.1651	106.1700	0.0029	0.0029	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jul	67.56	54.78	80.34	48.46	0.0083	0.0054	0.0124	130.0000	0.0100	0.0480	188.00	188.00	188.00	188.00
					0.0165	0.0444	120.1900	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
					0.0275	0.0008	78.1100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
					0.1450	0.0903	0.2131	106.1700	0.0001	0.0032	106.17	106.17	106.17	106.17
					0.3214	1.6676	3.1718	86.1700	0.0000	0.0004	86.17	86.17	86.17	86.17
					0.4160	0.2800	0.6042	92.1300	0.0003	0.0023	92.13	92.13	92.13	92.13
					0.0071	0.0061	0.0063	134.5233	0.0000	0.0038	134.5233	134.5233	134.5233	134.5233
					0.1173	0.0750	0.1787	106.1700	0.0029	0.0584	106.17	106.17	106.17	106.17
								130.0000	0.0100	0.0475	188.00	188.00	188.00	188.00
								120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
								0.0000	0.0000	0.0000				
Aug	65.85	54.11	77.60	48.46	0.0078	0.0053	0.0114	130.0000	0.0100	0.0475	188.00	188.00	188.00	188.00
					0.0257	0.0161	0.0402	120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
					1.3707	0.9897	1.8660	78.1100	0.0000	0.0000	78.11	78.11	78.11	78.11
					0.1327	0.0882	0.1953	106.1700	0.0001	0.0000	106.17	106.17	106.17	106.17
					2.2237	1.6582	2.9706	86.1700	0.0000	0.0004	86.17	86.17	86.17	86.17
					0.3892	0.2141	0.5587	92.1300	0.0003	0.0233	92.13	92.13	92.13	92.13
					0.0067	0.0058	0.0061	134.5130	0.0000	0.0044	134.5130	134.5130	134.5130	134.5130
					0.1107	0.0733	0.1636	106.1700	0.0029	0.0582	106.17	106.17	106.17	106.17
								130.0000	0.0100	0.0457	188.00	188.00	188.00	188.00
								120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
								0.0000	0.0000	0.0000				
Sep	60.36	50.29	70.42	48.46	0.0086	0.0047	0.0091	130.0000	0.0100	0.0457	188.00	188.00	188.00	188.00
					0.0207	0.0137	0.0307	120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
					1.1795	0.8866	1.5486	78.1100	0.0000	0.0021	78.11	78.11	78.11	78.11
					0.1089	0.0768	0.1546	106.1700	0.0001	0.0001	106.17	106.17	106.17	106.17
					1.9313	1.4777	2.4935	86.1700	0.0000	0.0004	86.17	86.17	86.17	86.17
					0.3338	0.2423	0.4582	92.1300	0.0003	0.0236	92.13	92.13	92.13	92.13
					0.0056	0.0049	0.0052	134.4774	0.0000	0.0000	134.4774	134.4774	134.4774	134.4774
					0.0915	0.0637	0.1292	106.1700	0.0029	0.0585	106.17	106.17	106.17	106.17
								130.0000	0.0100	0.0457	188.00	188.00	188.00	188.00
								120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
								0.0000	0.0000	0.0000				
Oct	53.46	45.37	61.54	48.46	0.0052	0.0039	0.0068	130.0000	0.0100	0.0455	188.00	188.00	188.00	188.00
					0.0157	0.0111	0.0217	120.1900	0.0000	0.0022	106.17	106.17	106.17	106.17
					0.9713	0.7673	1.2187	78.1100	0.0000	0.0001	78.11	78.11	78.11	78.11
					0.0861	0.0640	0.1145	106.1700	0.0000	0.0004	106.17	106.17	106.17	106.17
					1.6097	1.2504	1.9015	86.1700	0.0000	0.0004	86.17	86.17	86.17	86.17
					0.2684	0.2060	0.3483	92.1300	0.0003	0.0238	92.13	92.13	92.13	92.13
					0.0045	0.0040	0.0042	134.4272	0.0000	0.0000	134.4272	134.4272	134.4272	134.4272
					0.0715	0.0530	0.0954	106.1700	0.0029	0.0576	106.17	106.17	106.17	106.17
								130.0000	0.0100	0.0454	188.00	188.00	188.00	188.00
								120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
								0.0000	0.0000	0.0000				
Nov	47.24	41.63	52.95	48.46	0.0042	0.0034	0.0051	130.0000	0.0100	0.0414	188.00	188.00	188.00	188.00
					0.0120	0.0094	0.0153	120.1900	0.0000	0.0000	120.19	120.19	120.19	120.19
					0.8108	0.6836	0.9572	78.1100	0.0000	0.0022	78.11	78.11	78.11	78.11
					0.0686	0.0554	0.0845	106.1700	0.0001	0.0000	106.17	106.17	106.17	106.17
					1.3569	1.1561	1.5877	86.1700	0.0000	0.0000	86.17	86.17	86.17	86.17
					0.2191	0.1959	0.2360	92.1300	0.0003	0.0000	92.13	92.13	92.13	92.13
					0.0036	0.0033	0.0035	134.3675	0.0000	0.0000	134.3675	134.3675	134.3675	134.3675

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

	Xylene (cm)	41.35	35.95	46.74	48.46	0.0569	0.0458	0.0702	106.1700	0.0029	0.0567	106.17
Deco						0.0034	0.0031	0.0041	130.0000	0.0100	0.0394	188.00
Distillate fuel oil no. 2						0.0093	0.0073	0.0118	120.1900			120.19
1,2,4-Trimethylbenzene						0.0046	0.0046	0.0046	0.0046			C=208.56
Benzene						0.5799	0.5760	0.790	78.1100	0.0000	0.0023	78.11
Ethylbenzene						0.0550	0.0446	0.0674	106.1700	0.0001	0.0030	106.17
Hexane (-n)						1.1522	0.9865	1.3404	86.1700	0.0000	0.0005	86.17
Toluene						0.1798	0.1492	0.2156	92.1300	0.0003	0.0248	92.13
Unidentified Components						0.0030	0.0027	0.0028	134.3238	0.9866	0.8748	139.60
Xylene (cm)						0.0455	0.0368	0.0558	106.1700	0.0029	0.0567	106.17

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	38,457.3	48,528.6	100,434.5	142,477.4	170,915.1	188,247.7	184,736.9	116,802	79,152.9	44,819.4	36,424.1	
Vapor Space Volume (cu ft):	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	
Vapor Space Expansion Factor:	0.0501	0.0619	0.0869	0.0925	0.0988	0.0974	0.0988	0.0977	0.0652	0.0452	0.0431	
Ventted Vapor Saturation Factor:	0.9965	0.9951	0.9951	0.9927	0.9914	0.9912	0.9926	0.9941	0.9952	0.9952	0.9961	
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	330,325,3772	
Tank Diameter (ft):	140.000	140.000	140.000	140.000	140.000	140.000	140.000	140.000	140.000	140.000	140.000	
Vapor Space Outage (ft):	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	
Tank Shell Height (ft):	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	
Average Liquid Height (ft):	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	
Roof Outage (ft):	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	1.4583	
Roof Height (ft):	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	4.3750	
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	
Shell Radius (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	
Vapor Molecular Weight (lb/mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0083	0.0078	0.0052	0.0042	0.0034	
Daily Avg. Liquid Surface Temp. (deg. F):	499.1888	501.8297	507.9870	513.8325	519.7525	524.6394	527.2286	525.5241	513.1273	506.9064	501.0170	
Daily Average Ambient Temp. (deg. F):	20.8500	23.3000	32.9500	43.2000	53.3000	62.4000	66.5500	67.2500	59.1000	48.5000	26.4500	
Ideal Gas Constant R (psi*ft/(lb-mol*deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	
Liquid Bulk Temperature (deg. R):	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	
Liquid Bulk Temperature (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	
Tank Paint Solar Absorptance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	
Total Solar Insulation Factor (Btu/sqft/day):	597.1021	888.0387	1,221.4895	1,492.4381	1,767.1939	1,931.5398	1,908.9854	1,868.9808	1,343.3212	927.0629	478.7604	
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0501	0.0619	0.0869	0.0911	0.0925	0.0988	0.0974	0.0988	0.0777	0.0682	0.0452	
Daily Vapor Temperature Range (psia):	24.9768	31.0203	35.4252	41.5200	47.9034	51.6085	51.1257	46.9646	40.2448	32.3393	22.8376	
Daily Vapor Pressure Range (psia):	0.0008	0.0015	0.0028	0.0038	0.0052	0.0065	0.0059	0.0069	0.0044	0.0029	0.0017	
Breather Vent Press. Setting Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0044	0.0053	0.0065	0.0076	0.0083	0.0078	0.0066	0.0052	0.0042	0.0034	
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0031	0.0031	0.0031	0.0037	0.0043	0.0050	0.0054	0.0053	0.0047	0.0039	0.0031	
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0040	0.0046	0.0059	0.0075	0.0096	0.0115	0.0124	0.0114	0.0091	0.0068	0.0041	
Surface Temperature (psia):	501.8297	507.8670	513.8325	519.7525	524.6394	527.2285	525.5241	513.1273	508.1292	506.9064	501.0170	
Daily Avg. Liquid Surface Temp. (deg. R):	499.1888	494.0746	499.0107	503.4525	507.7767	511.7372	514.4490	513.7829	509.9612	495.6241	495.6241	
Daily Min. Liquid Surface Temp. (deg. R):	492.9446	505.4330	509.5847	516.7233	524.2125	531.5415	540.0108	537.2652	530.9337	512.6158	506.4099	
Daily Max. Liquid Surface Temp. (deg. R):	18.9000	19.6000	18.2000	19.8000	19.8000	20.5000	20.5000	20.5000	20.4000	16.6000	17.3000	
Daily Ambient Temp. Range (deg. R):												
Ventted Vapor Saturation Factor:	0.9965	0.9960	0.9951	0.9940	0.9927	0.9914	0.9907	0.9912	0.9926	0.9941	0.9961	
Vented Vapor Saturation Factor:	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0063	0.0078	0.0066	0.0042	0.0034	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):												
Surface Temperature (psia):												

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft ³):	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583	21.4583
Working Losses (lb):	32.4412	15.5989	42.8080	45.5296	0.0000	44.5887	23.8837	75.9184	64.3047
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0088	0.0098	0.0108
Net Throughput (Gal/mo.):	3,380,965.000	1,430,029.000	3,177,738.000	2,757,112.000	0.0000	1,889,359.000	930,281.000	3,126,252.000	3,167,536.000
Annual Turnovers:	4.5576	4.5576	4.5576	4.5576	4.5576	4.5576	4.5576	4.5576	4.5576
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (Gal):	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000	4,620,000.000
Maximum Liquid Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Tank Diameter (ft):	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000	140.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	70,8985	64,1295	116,7980	145,9640	142,4774	215,5038	212,1054	240,7183	181,1248

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	364.35	1,205.06	1,569.41
1,2,4-Trimethylbenzene	16.33	54.43	70.76
Benzene	0.77	2.53	3.31
Ethylbenzene	1.14	3.78	4.93
Hexane (-n)	0.16	0.52	0.68
Toluene	8.65	28.49	37.14
Unidentified Components	316.09	1,045.07	1,361.16
Xylene (-m)	21.21	70.24	91.44

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002010
City: Searsport
State: Maine
Company: Irving Oil Corp
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 40.00
Diameter (ft): 100.00
Liquid Height (ft): 39.00
Avg. Liquid Height (ft): 20.00
Volume (gallons): 2,100,000.00
Turnovers: 8.47
Net Throughput (gal/yr): 17,783,869.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.13
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf Temperatures (deg F)	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Avg.	Min.	Max.	
Distillate fuel oil no. 2	Jan	39.32	33.27	45.76	48.46	0.0031	0.0040	130.0000 Option 1: VP=0 = .0031 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0086	0.0113	120.1900	0.0100	0.0402
Benzene				0.6430	0.5296	78.1100	0.0000	0.0024
Ethylbenzene				0.0512	0.0401	106.1700	0.0001	0.0031
Hexane (-n)				1.0836	1.3045	86.1700	0.0000	0.0005
Toluene				0.1689	0.1358	0.2687	92.1300	0.0003
Unidentified Components				0.0027	0.0024	0.0025	134.4854	0.0252
Xylene (-m)				0.0424	0.0331	0.0338	106.1700	0.0003
Distillate fuel oil no. 2	Feb	42.16	34.40	49.91	48.46	0.0035	0.0031	130.0000 Option 2: A=7.009, B=1462.266, C=215.11 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0087	0.0135	120.1900	0.0100	0.0397
Benzene				0.6963	0.5487	78.1100	0.0000	0.0023
Ethylbenzene				0.0567	0.0420	106.1700	0.0001	0.0030
Hexane (-n)				1.1791	1.9427	1.4626	86.1700	0.0000
Toluene				0.1848	0.1413	0.2393	92.1300	0.0003
Unidentified Components				0.0030	0.0027	0.0029	134.3313	0.0245
Xylene (-m)				0.0469	0.0346	0.0348	106.1700	0.0003
Distillate fuel oil no. 2	Mar	48.20	39.34	57.05	48.46	0.0044	0.0031	130.0000 Option 2: A=7.009, B=1462.266, C=215.11 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0126	0.0085	0.0181	120.1900	0.0100
Benzene				0.8340	0.6395	1.0756	78.1100	0.0000
Ethylbenzene				0.0711	0.0509	0.0879	106.1700	0.0001
Hexane (-n)				1.3954	1.0881	1.7713	86.1700	0.0000
Toluene				0.2262	0.1679	0.3010	92.1300	0.0003
Unidentified Components				0.0038	0.0033	0.0035	134.3847	0.0241
Xylene (-m)				0.0590	0.0421	0.0614	106.1700	0.0003
Distillate fuel oil no. 2	Apr	54.16	43.78	64.54	48.46	0.0053	0.0037	130.0000 Option 2: A=7.009, B=1462.266, C=215.11 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0161	0.0104	0.0245	120.1900	0.0100
Benzene				0.9911	0.7317	1.3229	78.1100	0.0000
Ethylbenzene				0.0883	0.0603	0.1269	106.1700	0.0001
Hexane (-n)				1.6404	1.2343	2.1508	86.1700	0.0000
Toluene				0.2746	0.1963	0.3197	92.1300	0.0003
Unidentified Components				0.0046	0.0040	0.0042	134.4326	0.0236
Xylene (-m)				0.0734	0.0499	0.1058	106.1700	0.0029
Distillate fuel oil no. 2	May	60.08	48.11	72.06	48.46	0.0065	0.0043	130.0000 Option 2: A=7.009, B=1462.266, C=215.11 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0205	0.0125	0.0227	120.1900	0.0100
Benzene				1.1705	0.8318	1.6167	78.1100	0.0000
Ethylbenzene				0.1088	0.0709	0.1632	106.1700	0.0001
Hexane (-n)				1.9175	1.3919	2.5563	86.1700	0.0000
Toluene				0.3310	0.2255	0.4756	92.1300	0.0003
Unidentified Components				0.0056	0.0046	0.0050	134.4755	0.0236
Xylene (-m)				0.0306	0.0588	0.1164	106.1700	0.0029
Distillate fuel oil no. 2	Jun	64.97	52.07	77.87	48.46	0.0076	0.0050	130.0000 Option 2: A=7.009, B=1462.266, C=215.11 Option 5: A=12.101, B=8907

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

1,2,4-Trimethylbenzene		0.0249	0.0148	0.0406	120.1900	0.0100	0.0472	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene		1.3883	0.9333	1.8792	78.1100	0.0000	0.0020	78.11	Option 2: A=6.905, B=1211.038, C=220.79
Ethylbenzene		0.1283	0.0819	0.1970	106.1700	0.0001	0.0032	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)		2.1743	1.5506	2.9803	56.1700	0.0000	0.0024	56.17	Option 2: A=6.876, B=1171.117, C=224.41
Toluene		0.3847	0.2867	0.5631	92.1300	0.0003	0.0233	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0065	0.0056	0.0058	134.5055	0.0000	0.0004	134.5055	Option 2: A=7.009, B=1482.286, C=215.11
Xylene (m)		0.1074	0.0880	0.1651	106.1700	0.0029	0.0591	106.17	Option 2: A=7.009, B=1482.286, C=215.11
Distillate fuel oil no. 2	Jul	67.56	54.78	80.34	48.46	0.0083	0.0124	130.0000	188.00 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0275	0.0165	0.0444	120.1900	0.0100	0.0480
Benzene		1.4350	1.0496	2.0008	78.1100	0.0000	0.0020	78.11	Option 2: A=6.905, B=1211.038, C=220.79
Ethylbenzene		0.1405	0.0903	0.2131	106.1700	0.0001	0.0032	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)		2.3214	1.6876	3.1718	86.1700	0.0000	0.0004	86.17	Option 2: A=6.876, B=1171.117, C=224.41
Toluene		0.4160	0.2800	0.6642	92.1300	0.0003	0.0232	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0071	0.0061	0.0063	134.5233	0.0000	0.0038	134.5233	Option 2: A=7.009, B=1482.286, C=215.11
Xylene (-n)				0.0750	0.0750	0.1787	106.1700	0.0029	0.0594
Distillate fuel oil no. 2	Aug	65.85	54.11	77.60	48.46	0.0078	0.0053	0.0114	130.0000 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0257	0.0161	0.0402	120.1900	0.0100	0.0475
Benzene		1.3707	0.9887	1.8660	78.1100	0.0000	0.0020	78.11	Option 2: A=6.905, B=1211.038, C=220.79
Ethylbenzene		0.1327	0.0832	0.1953	106.1700	0.0001	0.0032	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)		2.2237	1.6352	2.9706	86.1700	0.0000	0.0004	86.17	Option 2: A=6.876, B=1171.117, C=224.41
Toluene		0.3852	0.2741	0.5887	92.1300	0.0003	0.0233	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0067	0.0058	0.0061	134.5130	0.0000	0.0038	134.5130	Option 2: A=7.009, B=1482.286, C=215.11
Xylene (-n)				0.1107	0.0733	0.1636	106.1700	0.0029	0.0592
Distillate fuel oil no. 2	Sep	60.36	50.29	70.42	48.46	0.0066	0.0047	0.0091	130.0000 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0207	0.0137	0.0307	120.1900	0.0100	0.0457
Benzene		1.1795	0.8886	1.5486	78.1100	0.0000	0.0021	78.11	Option 2: A=6.905, B=1211.038, C=220.79
Ethylbenzene		0.1099	0.0768	0.1546	106.1700	0.0001	0.0031	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)		1.9313	1.4777	2.4835	86.1700	0.0000	0.0004	86.17	Option 2: A=6.876, B=1171.117, C=224.41
Toluene		0.3338	0.2423	0.4832	92.1300	0.0003	0.0236	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0056	0.0049	0.0052	134.4774	0.0000	0.0036	134.4774	Option 2: A=7.009, B=1482.286, C=215.11
Xylene (-n)				0.0915	0.0637	0.1292	106.1700	0.0029	0.0595
Distillate fuel oil no. 2	Oct	53.46	45.37	61.54	48.46	0.0052	0.0039	0.0068	130.0000 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
1,2,4-Trimethylbenzene				0.0157	0.0111	0.0217	120.1900	0.0100	0.0435
Benzene		0.9713	0.6763	1.2167	78.1100	0.0000	0.0022	78.11	Option 2: A=6.905, B=1211.038, C=220.79
Ethylbenzene		0.0861	0.0640	0.1145	106.1700	0.0001	0.0031	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)		1.6097	1.2904	1.9815	86.1700	0.0000	0.0004	86.17	Option 2: A=6.876, B=1171.117, C=224.41
Toluene		0.2684	0.2060	0.3463	92.1300	0.0003	0.0238	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components		0.0045	0.0040	0.0042	134.4272	0.0000	0.0038	134.4272	Option 2: A=7.009, B=1482.286, C=215.11
Xylene (-n)				0.0715	0.0530	0.0954	106.1700	0.0029	0.0576
Distillate fuel oil no. 2				0.0042	0.0034	0.0051	130.0000 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56	106.17	Option 2: A=6.905, B=1211.038, C=220.79
1,2,4-Trimethylbenzene				0.0120	0.0084	0.0153	120.1900	0.0100	0.0414
Benzene		47.24	41.53	52.95	48.46	0.0042	0.0034	0.0051	120.19 Option 5: A=12.101, B=8907 Option 2: A=7.04383, B=1573.267, C=208.56
Ethylbenzene									120.19 Option 2: A=6.905, B=1211.038, C=220.79
Hexane (-n)									120.19 Option 2: A=6.975, B=1424.255, C=213.21
Toluene									120.19 Option 2: A=6.876, B=1171.117, C=224.41
Unidentified Components									120.19 Option 2: A=6.954, B=1344.8, C=219.48

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

	Xylene (cm)	41.35	35.95	46.74	48.46	0.0569	0.0458	0.0702	106.1700	0.0029	0.0567	106.17
Distillate fuel oil no. 2						0.0034	0.0031	0.0041	130.0000	0.0100	0.0394	186.00
1,2,4-Trimethylbenzene						0.0093	0.0073	0.0118	120.1900			Option 5: A=12.101, B=8907
Benzene						0.5760	0.7890	0.7874	78.1100	0.0000	0.0023	78.11
Ethylbenzene						0.0550	0.0446	0.0446	105.1700	0.0001	0.0030	105.17
Hexane (-n)						1.1522	0.9865	1.3404	86.1700	0.0000	0.0005	86.17
Toluene						0.1198	0.1492	0.2156	92.1300	0.0003	0.0243	92.13
Unidentified Components						0.0030	0.0267	0.0028	134.3238	0.9866	0.8748	189.60
Xylene (cm)						0.0455	0.0368	0.0558	105.1700	0.0029	0.0557	106.17

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	19.2414	24.2811	37.0200	50.2530	71.2912	85.5226	94.1939	82.4631	58.4532	38.6045	22.4251	18.2242
Vapor Space Volume (cu ft):	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0501	0.0619	0.0869	0.0881	0.0925	0.0948	0.0974	0.0988	0.0998	0.0998	0.0998	0.0998
Vented Vapor Saturation Factor:	0.9866	0.9861	0.9852	0.9841	0.9825	0.9816	0.9808	0.9808	0.9808	0.9808	0.9808	0.9808
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634	165,260,8634
Tank Diameter (ft):	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
Vapor Space Outage (ft):	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000
Roof Outage (ft):	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417	1.0417
Roof Outage (Cone Roof)												
Roof Outage (ft):	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250	3.1250
Roof Height (ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Roof Slope (ft/ft):	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000	50.0000
Shell Radius (ft):												
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):												
Daily Avg. Liquid Surface Temp. (deg. R):	498.1988	501.8297	507.3870	513.8325	519.7525	524.6394	527.2295	525.5241	520.0275	513.1273	506.9064	501.0170
Daily Average Ambient Temp. (deg. F):	20.8500	23.3000	32.9500	43.2000	53.3000	62.4000	68.5500	67.2500	59.1000	48.5600	38.7600	26.4500
Ideal Gas Constant R (psia cu ft / lb-mol-deg R):												
Liquid Bulk Temperature (deg. R):	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorptance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft day):	597.1021	888.0387	1,221.495	1,492.4381	1,767.1939	1,931.5398	1,909.9654	1,909.9654	1,934.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0501	0.0519	0.0699	0.0811	0.0925	0.0988	0.1074	0.0988	0.0777	0.0632	0.0452	0.0431
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	24.9768	31.0203	36.4252	41.5200	47.9034	51.6085	51.1257	48.9646	40.2848	32.3993	22.8276	21.5716
Daily Vapor Temperature Range (psia):	0.0009	0.0015	0.0028	0.0038	0.0052	0.0069	0.0089	0.0099	0.0099	0.0099	0.0099	0.0099
Breather Vent Press. Setting Range (psi):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):												
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0031	0.0031	0.0031	0.0031	0.0043	0.0050	0.0054	0.0053	0.0047	0.0038	0.0034	0.0031
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0040	0.0046	0.0059	0.0075	0.0096	0.0115	0.0124	0.0114	0.0091	0.0068	0.0051	0.0041
Surface Temperature (psia):	501.8297	507.8670	513.8325	519.7525	524.6394	527.2295	525.5241	520.0275	513.1273	506.9064	501.0170	
Daily Avg. Liquid Surface Temp. (deg. R):	498.1858	494.0746	499.0107	503.4525	507.7767	514.4480	513.7829	508.9612	501.1970	495.6241	506.4099	
Daily Min. Liquid Surface Temp. (deg. R):	492.9446	506.5847	516.7233	524.2125	531.7283	537.5415	540.0109	537.2632	521.2211	512.6158	517.0000	
Daily Max. Liquid Surface Temp. (deg. R):	505.4330	519.6900	18.9000	18.2000	19.8000	20.5000	20.3000	20.4000	20.4000	16.6000	17.3000	
Daily Ambient Temp. Range (deg. R):												
Ventilated Vapor Saturation Factor:	0.9866	0.9861	0.9852	0.9841	0.9928	0.9913	0.9927	0.9942	0.9853	0.9862		
Ventilated Vapor Saturation Factor:	0.0035	0.0035	0.0044	0.0053	0.0065	0.0076	0.0063	0.0066	0.0062	0.0042	0.0034	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0031	0.0031	0.0031	0.0043	0.0050	0.0054	0.0053	0.0047	0.0038	0.0034	
Surface Temperature (psia):												
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft ³):	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	21.0417	
Working Losses (lb):													
Vapor Molecular Weight (lb/lb-mole):													
Vapor Pressure at Daily Average Liquid Surface Temperature (psia);													
Net Throughput (gal/mo.):	1,090,263.000	682,528.0000	1,551,597.000	2,235,922.000	375,297.0000	1,702,199.000	0	3,072,004.000	872,218.0000	0.0066	1,983,787.000	1,591,696.000	1,364,458.000
Annual Turnovers:													
Turnover Factor:	0	8.4685	8.4685	8.4685	8.4685	8.4685	8.4685	8.4685	8.4685	0	0	0	
Maximum Liquid Volume (gal):	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	
Maximum Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	
Tank Diameter (ft):	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total Losses (lb):	29,7027	31,7300	57,9221	87,1759	78,8414	125,6944	116,5686	157,0641	83,6656	71,5925	43,1665	32,8982	

TANKS 4.0

Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	313.04	602.97	916.02
1,2,4-Trimethylbenzene	14.03	27.24	41.27
Benzene	0.86	1.27	1.93
Ethylbenzene	0.98	1.89	2.87
Hexane (-n)	0.14	0.26	0.40
Toluene	7.41	14.25	21.67
Unidentified Components	271.61	522.92	794.53
Xylene (-m)	18.20	35.14	53.34

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002011
City: Searsport
State: Maine
Company: Irving Oil Corp
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 40.00
Diameter (ft): 90.00
Liquid Height (ft): 35.00
Avg. Liquid Height (ft): 20.00
Volume (gallons): 1,680,000.00
Turnovers: 6.17
Net Throughput (gal/yr): 10,359,056.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 2.81
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

TANKS 4.0

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight Calculations
		Avg.	Min.	Max.	Max.	Avg.	Min.			
Distillate fuel oil no. 2	Jan	39.52	33.27	45.76	48.46	0.0031	0.0040	130.0000	0.0100	0.0402
1,2,4-Trimethylbenzene						0.0086	0.0113	120.1900		120.19
Benzene						0.6430	0.5286	0.7762	78.1100	0.0024
Ethylbenzene						0.0512	0.0401	0.0650	106.1700	0.0031
Hexane (-n)						0.9118	1.3045	0.8676	86.1700	0.0005
Toluene						0.1689	0.1358	0.2087	92.1300	0.0003
Unidentified Components						0.0027	0.0024	0.0025	134.4854	0.9866
Xylene (-m)						0.0424	0.0331	0.0538	108.1700	0.0029
Distillate fuel oil no. 2	Feb	42.16	34.40	49.91	48.46	0.0035	0.0031	0.0046	130.0000	0.0005
1,2,4-Trimethylbenzene						0.0087	0.0068	0.0135	120.1900	0.0397
Benzene						0.8968	0.5487	0.8769	78.1100	0.0000
Ethylbenzene						0.0567	0.0420	0.0757	106.1700	0.0001
Hexane (-n)						1.1791	0.9427	1.4626	86.1700	0.0000
Toluene						0.1848	0.1413	0.2393	92.1300	0.0003
Unidentified Components						0.0030	0.0027	0.0028	134.3313	0.9866
Xylene (-n)						0.0469	0.0346	0.0628	108.1700	0.0029
Distillate fuel oil no. 2	Mar	48.20	39.34	57.05	48.46	0.0044	0.0031	0.0059	130.0000	0.0100
1,2,4-Trimethylbenzene						0.0126	0.0085	0.0181	120.1900	0.0417
Benzene						0.8340	0.6395	1.0756	78.1100	0.0000
Ethylbenzene						0.0711	0.0509	0.0879	106.1700	0.0001
Hexane (-n)						1.3954	1.0881	1.7713	86.1700	0.0000
Toluene						0.2262	0.1679	0.3010	92.1300	0.0003
Unidentified Components						0.0038	0.0033	0.0035	134.3847	0.9866
Xylene (-m)						0.0560	0.0421	0.0614	108.1700	0.0028
Distillate fuel oil no. 2	Apr	54.16	43.78	64.54	48.46	0.0053	0.0037	0.0075	130.0000	0.0100
1,2,4-Trimethylbenzene						0.0161	0.0104	0.0245	120.1900	0.0437
Benzene						0.8911	0.7317	1.3229	78.1100	0.0000
Ethylbenzene						0.0883	0.0603	0.1269	106.1700	0.0001
Hexane (-n)						1.6404	1.2343	2.1508	86.1700	0.0000
Toluene						0.2746	0.1953	0.3197	92.1300	0.0003
Unidentified Components						0.0046	0.0040	0.0042	134.4326	0.9866
Xylene (-m)						0.0734	0.0489	0.1058	106.1700	0.0029
Distillate fuel oil no. 2	May	60.08	48.11	72.06	48.46	0.0065	0.0043	0.0096	130.0000	0.0100
1,2,4-Trimethylbenzene						0.0205	0.0125	0.0227	120.1900	0.0456
Benzene						1.1705	0.8318	1.6167	78.1100	0.0000
Ethylbenzene						0.1988	0.0708	0.1632	106.1700	0.0001
Hexane (-n)						1.9175	1.3919	2.5863	86.1700	0.0004
Toluene						0.3310	0.2255	0.4756	92.1300	0.0003
Unidentified Components						0.0056	0.0048	0.0050	134.4755	0.9866
Xylene (-m)						0.0906	0.0588	0.1164	106.1700	0.0029
Distillate fuel oil no. 2	Jun	64.97	52.07	77.87	48.46	0.0076	0.0050	0.0115	130.0000	0.0115

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Liquid Contents of Storage Tank - (Continued)

0.0249	0.0148	0.0406	120.1900	0.0100	0.0472	120.19	Option 2: A=7/04363, B=153.267,	C=208.56	78.11	Option 2: A=6-905, B=1211.033, C=220.79	78.11	Option 2: A=6-905, B=1211.033, C=220.79	78.11
Benzene		1.3333	0.9333	1.8792	78.1100	0.0000	0.0020	0.0001	0.0017	Benzene	1.3333	0.9333	1.8792
Ethylbenzene		0.1288	0.1970	0.2819	86.1700	0.0001	0.0001	0.0001	0.0017	Ethylbenzene	0.1288	0.1970	0.2819
Hexane (-n)		2.1743	1.5506	2.9903	86.1700	0.0000	0.0000	0.0000	0.0017	Hexane (-n)	2.1743	1.5506	2.9903
Toluene		0.3847	0.2867	0.5631	92.1300	0.0003	0.0003	0.0003	0.0233	Toluene	0.3847	0.2867	0.5631
Unidentified Components					0.0085	0.0056	0.0055	0.0055	0.0233	Unidentified Components			
Xylene (-m)					0.1074	0.0980	0.1651	0.1651	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					0.0054	0.0124	0.1300	0.1300	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					0.0275	0.0165	0.0444	0.0444	0.0233	1,2,4-Trimethylbenzene			
Benzene					1.4350	1.0086	2.0086	2.0086	0.0233	Benzene			
Ethylbenzene					0.1405	0.0903	0.2131	0.2131	0.0233	Ethylbenzene			
Hexane (-n)					2.3214	1.6876	3.1718	3.1718	0.0233	Hexane (-n)			
Toluene					0.4160	0.2800	0.6042	0.6042	0.0233	Toluene			
Unidentified Components					0.0071	0.0061	0.0063	0.0063	0.0233	Unidentified Components			
Xylene (-m)					0.1173	0.0750	0.1787	0.1787	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					48.46	0.0078	0.0053	0.0114	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					77.80	0.0257	0.0161	0.0402	0.0233	1,2,4-Trimethylbenzene			
Benzene		65.85	54.11	1.3707	0.9897	1.8680	2.1100	2.1100	0.0233	Benzene			
Ethylbenzene					0.1327	0.0882	0.1953	0.1953	0.0233	Ethylbenzene			
Hexane (-n)					2.2237	1.6882	2.9706	2.9706	0.0233	Hexane (-n)			
Toluene					0.39852	0.2741	0.5587	0.5587	0.0233	Toluene			
Unidentified Components					0.0067	0.0058	0.0061	0.0061	0.0233	Unidentified Components			
Xylene (-m)					0.1107	0.0733	0.1636	0.1636	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					70.42	48.46	0.0068	0.0047	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					50.29	0.0207	0.0137	0.0307	0.0233	1,2,4-Trimethylbenzene			
Benzene					1.1795	0.8868	1.5485	1.5485	0.0233	Benzene			
Ethylbenzene					0.1099	0.0768	0.1546	0.1546	0.0233	Ethylbenzene			
Hexane (-n)					1.9313	1.4777	2.4935	2.4935	0.0233	Hexane (-n)			
Toluene					0.3338	0.2423	0.4532	0.4532	0.0233	Toluene			
Unidentified Components					0.0056	0.0049	0.0052	0.0052	0.0233	Unidentified Components			
Xylene (-m)					0.0915	0.0837	0.1292	0.1292	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					0.0157	0.0111	0.0217	0.0217	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					0.7673	1.2187	78.1100	78.1100	0.0233	1,2,4-Trimethylbenzene			
Benzene					0.9713	0.7673	1.0145	1.0145	0.0233	Benzene			
Ethylbenzene					0.0861	0.0840	1.5915	1.5915	0.0233	Ethylbenzene			
Hexane (-n)					1.6097	1.2804	2.0260	2.0260	0.0233	Hexane (-n)			
Toluene					0.2684	0.2060	0.3463	0.3463	0.0233	Toluene			
Unidentified Components					0.0045	0.0040	0.0042	0.0042	0.0233	Unidentified Components			
Xylene (-m)					0.0715	0.0540	0.0954	0.0954	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					48.46	0.0042	0.0034	0.0051	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					52.95	0.0120	0.0084	0.0153	0.0233	1,2,4-Trimethylbenzene			
Benzene		47.24	41.53	78.1100	0.0000	0.0000	0.0000	0.0000	0.0233	Benzene			
Ethylbenzene					0.6836	0.9572	1.0617	1.0617	0.0233	Ethylbenzene			
Hexane (-n)					0.6886	0.0854	0.0845	0.0845	0.0233	Hexane (-n)			
Toluene					1.3589	1.1531	1.5877	1.5877	0.0233	Toluene			
Unidentified Components					0.2191	0.1809	0.2640	0.2640	0.0233	Unidentified Components			
Xylene (-m)					0.0035	0.0035	0.0035	0.0035	0.0233	Xylene (-m)			
Distillate fuel oil no. 2					48.46	0.0000	0.0000	0.0000	0.0233	Distillate fuel oil no. 2			
1,2,4-Trimethylbenzene					52.95	0.0000	0.0000	0.0000	0.0233	1,2,4-Trimethylbenzene			
Benzene					0.8108	0.0000	0.0000	0.0000	0.0233	Benzene			
Ethylbenzene					0.6836	0.9572	1.0617	1.0617	0.0233	Ethylbenzene			
Hexane (-n)					0.6886	0.0854	0.0845	0.0845	0.0233	Hexane (-n)			
Toluene					1.3589	1.1531	1.5877	1.5877	0.0233	Toluene			
Unidentified Components					0.2191	0.1809	0.2640	0.2640	0.0233	Unidentified Components			
Xylene (-m)					0.0035	0.0035	0.0035	0.0035	0.0233	Xylene (-m)			

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Liquid Contents of Storage Tank - (Continued)

Xylene (cm)	41.35	35.95	46.74	48.46	0.0569	0.0458	0.0702	106.1700	0.0029	0.0587	106.17	Option 2: A=7.009, B=1462.286, C=215.11
Distillate fuel oil no. 2					0.0034	0.0031	0.0041	130.0000			188.00	Option 5: A=12.101, B=8907
1,2,4-trimethylbenzene					0.0093	0.0073	0.0118	120.1900	0.0100	0.0384	120.19	Option 2: A=7.04363, B=1573.287, C=208.56
Benzene					0.6799	0.5760	0.7900	78.1100	0.0000	0.0023	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Ethylbenzene					0.0550	0.0446	0.0674	106.1700	0.0001	0.0050	106.17	Option 2: A=6.875, B=1424.255, C=213.21
Hexane (-n)					1.1522	0.9865	1.3404	86.1700	0.0000	0.0006	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Toluene					0.1798	0.1482	0.2156	92.1300	0.0003	0.0243	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components					0.0030	0.0027	0.0028	134.3288	0.0008	0.0748	189.60	Option 2: A=7.009, B=1462.286, C=215.11
Xylene (cm)					0.0465	0.0368	0.0558	106.1700	0.0029	0.0587	106.17	Option 2: A=7.009, B=1462.286, C=215.11

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Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	15,5086	19,5107	29,8385	40,5046	57,4620	68,9333	75,9228	66,4673	47,1144	31,9217	18,0748	14,6888
Vapor Space Volume (cu ft):	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0501	0.0519	0.0689	0.0811	0.0925	0.0925	0.0925	0.0925	0.0925	0.0832	0.0452	0.0431
Vented Vapor Saturation Factor:	0.9866	0.9861	0.9852	0.9841	0.9923	0.9916	0.9908	0.9898	0.9888	0.9843	0.9853	0.9862
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196	133,198,6196
Tank Diameter (ft):	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000
Vapor Space Outage (ft):	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000
Roof Outage (ft):	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375
Roof Outage (Cone Roof)												
Roof Outage (ft):	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375
Roof Height (ft):	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125	2.8125
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft):	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000	45.0000
Vapor Density												
Vapor Density (lb/mcu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/mol):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0083	0.0078	0.0066	0.0052	0.0042	0.0034
Daily Avg. Liquid Surface Temp. (deg. R):	499.1888	501.8297	507.8670	513.8525	518.7525	524.6394	527.2285	525.5241	520.2075	513.1273	506.9064	501.0170
Daily Average Ambient Temp. (deg. F):	20.8500	23.3000	32.9500	43.2000	53.3000	62.4000	68.5500	67.2500	59.1000	48.5000	38.7000	26.4500
Ideal Gas Constant R (psi cu ft / lb-mol-deg R):												
Liquid Bulk Temperature (deg. R):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. C):	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorptance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft day):	597.1021	888.0387	1,221.4885	1,492.4381	1,767.1939	1,931.5398	1,968.9654	1,968.9654	1,934.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0501	0.0619	0.0698	0.0811	0.0925	0.0988	0.1074	0.0988	0.0777	0.0632	0.0452	0.0431
Daily Vapor Temperature Range (deg. R):	24.9768	31.0203	35.4252	41.5200	47.9034	51.6035	51.1257	46.9646	40.2648	32.3933	22.8376	21.5716
Daily Vapor Pressure Range (psia):	0.0009	0.0015	0.0028	0.0038	0.0052	0.0065	0.0069	0.0069	0.0064	0.0029	0.0017	0.0010
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0031	0.0031	0.0037	0.0043	0.0050	0.0054	0.0053	0.0047	0.0039	0.0034	0.0031
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0040	0.0046	0.0059	0.0075	0.0096	0.0115	0.0124	0.0114	0.0091	0.0068	0.0051	0.0041
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0040	0.0046	0.0059	0.0075	0.0096	0.0115	0.0124	0.0114	0.0091	0.0068	0.0051	0.0041
Surface Temperature (psia):	501.8297	507.8670	513.8325	519.7525	527.2285	525.5241	521.7372	514.4430	513.7839	513.1273	506.9064	501.0170
Daily Avg. Liquid Surface Temp. (deg R):	499.1888	499.0107	503.4525	507.7767	514.4430	540.0189	537.2652	530.9837	521.2121	512.6158	495.6241	496.4099
Daily Min. Liquid Surface Temp. (deg R):	492.9446	494.0746	516.7233	524.2125	531.7283	519.8000	20.6000	20.3000	20.4000	16.6000	17.3000	
Daily Max. Liquid Surface Temp. (deg R):	505.4330	509.5347	516.9000	19.6000	18.2000	19.8000	19.8000	19.8000	19.8000	19.8000	19.8000	
Daily Ambient Temp. Range (deg R):	18.9000											
Ventilated Vapor Saturation Factor:	0.9966	0.9961	0.9952	0.9841	0.9928	0.9916	0.9914	0.9909	0.9908	0.9943	0.9893	0.9862
Ventilated Vapor Saturation Factor:	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0083	0.0066	0.0052	0.0042	0.0034	

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Emissions Report - Detail Format

Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft):	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375	20.9375
Working Losses (lb):	11,344.9	10,234.6	12,517.1	7,581.5	43,829.3	31,468.8	23,692.9	26,612.5	26,782.4	0.0000	0.0000
Vapor Molecular Weight (lb/mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0083	0.0093	0.0098	0.0068	0.0052
Net Throughput (Gal/min):	1,182,345.00	938,198.0000	929,198.0000	459,107.0000	2,178,158.000	1,333,342.000	923,603.0000	1,095,878.000	1,319,256.000	0.0000	0.0000
Annual Turnovers:	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661	6.1661
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (Gal):	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000	1,680,000.000
Maximum Liquid Height (ft):	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	35.0000	0	0
Tank Diameter (ft):	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000	90.0000
Working Losses Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	26,853.5	29,805.4	42,355.6	48,086.0	101,282.3	100,400.0	99,615.7	93,079.8	73,856.8	31,921.7	18,074.8

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Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	194.05	486.01	680.06
1,2,4-Trimethylbenzene	8.82	21.95	30.77
Benzene	0.41	1.02	1.43
Ethylbenzene	0.61	1.53	2.14
Hexane (-n)	0.08	0.21	0.29
Toluene	4.58	11.49	16.07
Unidentified Components	168.20	421.48	589.69
Xylene (-m)	11.34	28.33	39.67

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002012
City: Searsport
State: Maine
Company: Irving Oil Corp.
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 40.00
Diameter (ft): 80.00
Liquid Height (ft): 20.00
Avg. Liquid Height (ft): 10.00
Volume (gallons): 756,000.00
Turnovers: 0.00
Net Throughput (gal/yr): 0.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 0.00
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

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Emissions Report - Detail Format

Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Vapor Pressures (psia)			Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Min.	Avg.	Max.				
Jet kerosene	Jan	39.52	33.27	45.76	48.46	0.0041	0.0051	130.0000	78.1100	0.0000	0.0078
Benzene				0.6430	0.5286	0.7762	0.0401	0.0013	0.0193	0.0166	162.00 Option 1: VP=0 = .0041
Ethylbenzene				0.0512	0.0401	0.0650	1.3445	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				1.0936	0.9118	1.3445	0.2987	0.0011	0.0011	0.0011	108.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.1889	0.1358	0.2987	0.2987	0.0013	0.0013	0.0013	86.17 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0028	0.0031	0.0031	0.0031	0.0013	0.0013	0.0013	92.13 Option 2: A=6-954, B=1344.8, C=219.48
Xyrene (-m)				0.0424	0.0331	0.0331	0.0331	0.0013	0.0013	0.0013	162.55 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	Feb	42.16	34.40	49.91	48.46	0.0045	0.0041	130.0000	78.1100	0.0000	0.0078
Benzene				0.6568	0.5487	0.8769	0.0420	0.0013	0.0201	0.0164	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.0567	0.0420	0.0757	1.1791	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				1.0848	0.9427	1.4826	0.2953	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.0036	0.0143	0.0293	0.0293	0.0013	0.0013	0.0013	92.13 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0469	0.0311	0.0333	0.0328	0.0013	0.0013	0.0013	162.55 Option 2: A=6-954, B=1344.8, C=219.48
Xylene (-m)				0.0346	0.0283	0.0328	0.0328	0.0013	0.0013	0.0013	162.17 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	Mar	48.20	39.34	57.05	48.46	0.0055	0.0041	130.0000	78.1100	0.0000	0.0075
Benzene				0.5340	0.4595	1.0756	0.0779	0.0013	0.0204	0.0157	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.0711	0.0509	0.1713	1.3954	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				1.3954	1.0881	1.7713	0.3211	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.2262	0.1679	0.3010	0.3010	0.0013	0.0013	0.0013	92.13 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0044	0.0038	0.0040	0.0040	0.0013	0.0013	0.0013	162.55 Option 2: A=6-954, B=1344.8, C=219.48
Xylene (-m)				0.0590	0.0421	0.0514	0.0514	0.0013	0.0013	0.0013	162.17 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	Apr	54.16	43.78	64.54	48.46	0.0068	0.0047	130.0000	78.1100	0.0000	0.0075
Benzene				0.5611	0.4717	1.3229	0.1663	0.0013	0.0206	0.0156	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.0683	0.0483	0.1669	1.2442	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				1.6404	1.2443	2.1508	0.1933	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.2746	0.1933	0.3197	0.3197	0.0013	0.0013	0.0013	92.13 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0054	0.0046	0.0049	0.0049	0.0013	0.0013	0.0013	162.55 Option 2: A=6-954, B=1344.8, C=219.48
Xylene (-m)				0.0734	0.0489	0.1058	0.1058	0.0013	0.0013	0.0013	162.17 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	May	60.08	48.11	72.06	48.46	0.0083	0.0055	130.0000	78.1100	0.0000	0.0075
Benzene				1.1705	0.8318	1.6167	0.1632	0.0013	0.0209	0.0145	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.1088	0.0708	0.1632	1.9175	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				2.1508	1.3919	2.5563	0.2255	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.3310	0.2155	0.4766	0.3310	0.0013	0.0013	0.0013	92.13 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0066	0.0056	0.01364	0.01364	0.0013	0.0013	0.0013	162.55 Option 2: A=6-954, B=1344.8, C=219.48
Xylene (-m)				0.0506	0.0558	0.0658	0.0658	0.0013	0.0013	0.0013	162.17 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	Jun	64.97	52.07	77.87	48.46	0.0097	0.0063	130.0000	78.1100	0.0000	0.0069
Benzene				1.3383	0.9333	1.8782	0.0819	0.0013	0.0210	0.0140	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.1288	0.1288	0.1570	2.1743	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				1.5506	2.9803	2.9803	0.2567	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Toluene				0.3847	0.2567	0.5631	0.2078	0.0013	0.0013	0.0013	92.13 Option 2: A=6-876, B=1171.17, C=224.41
Unidentified Components				0.0076	0.0065	0.01651	0.0174	0.0013	0.0013	0.0013	162.55 Option 2: A=6-954, B=1344.8, C=219.48
Xylene (-m)				0.1074	0.0680	0.1651	0.1651	0.0013	0.0013	0.0013	162.17 Option 2: A=7-009, B=1462.266, C=215.11
Jet kerosene	Jul	67.56	54.78	80.34	48.46	0.0105	0.0069	130.0000	78.1100	0.0000	0.0068
Benzene				1.4350	1.0056	2.0008	0.2131	0.0013	0.0211	0.0140	162.00 Option 5: A=12.39, B=8933
Ethylbenzene				0.1405	0.9003	1.6676	2.3214	0.0011	0.0011	0.0011	162.11 Option 2: A=6-905, B=1211.033, C=220.79
Hexane (-n)				3.2214	3.1718	3.1718	3.1718	0.0013	0.0013	0.0013	86.17 Option 2: A=6-975, B=1424.255, C=213.21
Unidentified Components											162.00 Option 5: A=12.39, B=8933

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Emissions Report - Detail Format Liquid Contents of Storage Tank - (Continued)

Toluene	0.4160	0.2600	0.6042	92.1300	0.0013	0.0655	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	0.0085	0.0071	0.0075	138.6128	0.3842	0.8499	162.55	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	0.1173	0.0750	0.1787	106.1700	0.0031	0.0450	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Jet Kerosene	54.11	77.60	48.46	0.0100	0.0068	0.0145	130.0000	0.0000
Benzene	65.85	1.3707	0.9897	1.8680	78.1100	0.0000	0.0089	78.11
Ethylbenzene	0.1327	0.0382	0.1953	106.1700	0.0013	0.0211	106.17	Option 2: A=6.905, B=1211.033, C=220.79
Hexane (-n)	2.2237	1.6382	2.9706	86.1700	0.0001	0.0139	86.17	Option 2: A=6.975, B=1424.255, C=213.21
Toluene	0.3852	0.2471	0.5587	92.1300	0.0013	0.0657	92.13	Option 2: A=6.876, B=171.17, C=224.41
Unidentified Components	0.0080	0.0068	0.0071	138.6486	0.3842	0.8496	162.55	Option 2: A=6.954, B=1344.8, C=219.48
Xylene (-m)	0.1107	0.0733	0.1636	106.1700	0.0031	0.0429	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	60.36	50.29	70.42	48.46	0.0083	0.0059	130.0000	0.0000
Benzene	1.1795	0.8686	1.5486	78.1100	0.0000	0.0071	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Ethylbenzene	0.1099	0.0768	0.1548	106.1700	0.0013	0.0209	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)	1.9313	1.4777	2.4935	86.1700	0.0001	0.0144	86.17	Option 2: A=6.876, B=171.17, C=224.41
Toluene	0.3338	0.2423	0.4532	92.1300	0.0013	0.0654	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components	0.0067	0.0057	0.0061	138.7551	0.3842	0.8487	162.55	Option 2: A=7.009, B=1462.266, C=215.11
Xylene (-m)	0.0915	0.0637	0.1292	106.1700	0.0031	0.0424	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	53.46	45.37	61.54	48.46	0.0066	0.0050	130.0000	0.0000
Benzene	0.9713	0.7673	1.2187	78.1100	0.0000	0.0073	78.11	Option 5: A=12.39, B=8333
Ethylbenzene	0.0861	0.0640	0.1145	106.1700	0.0013	0.0206	106.17	Option 2: A=6.905, B=1211.033, C=220.79
Hexane (-n)	1.8697	1.2904	1.9815	86.1700	0.0001	0.0152	86.17	Option 2: A=6.975, B=1424.255, C=213.21
Toluene	0.2684	0.2090	0.3463	92.1300	0.0013	0.0673	92.13	Option 2: A=6.876, B=171.17, C=224.41
Unidentified Components	0.0053	0.0046	0.0049	138.8839	0.3842	0.8478	162.55	Option 2: A=6.954, B=1344.8, C=219.48
Xylene (-m)	0.0715	0.0530	0.0954	106.1700	0.0031	0.0418	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	47.24	41.53	52.95	48.46	0.0053	0.0044	130.0000	0.0000
Benzene	0.8108	0.6836	0.9872	78.1100	0.0000	0.0076	78.11	Option 5: A=12.39, B=8333
Ethylbenzene	0.0686	0.0554	0.0845	106.1700	0.0013	0.0203	106.17	Option 2: A=6.905, B=1211.033, C=220.79
Hexane (-n)	1.3589	1.1581	1.5677	86.1700	0.0001	0.0159	86.17	Option 2: A=6.975, B=1424.255, C=213.21
Toluene	0.2191	0.1809	0.2640	92.1300	0.0013	0.0680	92.13	Option 2: A=6.876, B=171.17, C=224.41
Unidentified Components	0.0043	0.0038	0.0040	139.0012	0.3842	0.8471	162.55	Option 2: A=6.954, B=1344.8, C=219.48
Xylene (-m)	0.0569	0.0458	0.0702	106.1700	0.0031	0.0412	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Jet kerosene	41.35	35.95	46.74	48.46	0.0043	0.0041	130.0000	0.0000
Benzene	0.6798	0.5780	0.7890	78.1100	0.0000	0.0078	78.11	Option 5: A=12.39, B=8333
Ethylbenzene	0.0550	0.0446	0.0674	106.1700	0.0013	0.0200	106.17	Option 2: A=6.905, B=1211.033, C=220.79
Hexane (-n)	1.1522	0.9855	1.3404	86.1700	0.0001	0.0165	86.17	Option 2: A=6.975, B=1424.255, C=213.21
Toluene	0.1798	0.1492	0.2156	92.1300	0.0013	0.0687	92.13	Option 2: A=6.876, B=171.17, C=224.41
Unidentified Components	0.0035	0.0031	0.0033	138.1047	0.3842	0.8485	162.55	Option 2: A=6.954, B=1344.8, C=219.48
Xylene (-m)	0.0455	0.0368	0.0558	106.1700	0.0031	0.0405	106.17	Option 2: A=7.009, B=1462.266, C=215.11

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Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	23,781.4	28,777.8	43,881.8	59,365.1	84,472.8	101,292.9	111,531.7	97,656.8	69,295.3	46,944.6	26,555.8	21,597.6
Vapor Space Volume (cu ft):	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001
Vapor Space Expansion Factor:	0.0501	0.0619	0.0700	0.0811	0.0911	0.0981	0.0982	0.0983	0.0984	0.0985	0.0952	0.0431
Vent Vap. Saturat. Factor:	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9833	0.9830
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374	154,985,2374
Tank Diameter (ft):	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0	80,000.0
Vapor Space Outage (ft):	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3	30,833.3
Tank Shell Height (ft):	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0
Average Liquid Height (ft):	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0	10,000.0
Shell Outage (ft):	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Roof Outage (Cone Roof)												
Roof Outage (ft):	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
Roof Height (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft):	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0	40,000.0
Vapor Density												
Vapor Molecular Weight (lb/lb-mole):	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0	130,000.0
Daily Avg. Liquid Surface Temp. (deg. R):	0.0041	0.0045	0.0055	0.0068	0.0083	0.0105	0.0105	0.0105	0.0105	0.0105	0.0066	0.0043
Daily Average Ambient Temp. (deg. F):	498.1888	501.8937	507.8670	513.8325	519.7525	524.6394	527.2295	525.5241	520.0275	513.1273	506.9064	501.0170
Ideal Gas Constant R (psia-cuft / lb-mol-deg R):	20.6500	23.3000	32.9500	43.2000	53.3000	62.4000	68.5500	72.2500	59.1000	48.5000	38.7000	26.4500
Liquid Bulk Temperature (deg. R):	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731
Tank Paint Solar Absorptance (Shell):	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292	508.1292
Tank Total Solar Insulation Factor (ft ² /sqft/day):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Breather Vent Press. Setting Range(psi):	597.1021	888.0387	1,221.4895	1,492.4381	1,767.1939	1,931.5398	1,909.9654	1,898.9899	1,843.3212	927.0629	571.7205	478.7604
Vapor Space Expansion Factor												
Daily Vapor Temperature Range (deg. R):	0.0501	0.0619	0.0700	0.0811	0.0926	0.0989	0.0976	0.1027	0.1056	0.0989	0.0778	0.0633
Daily Vapor Pressure Range (psia):	24,9768	31,0203	35,4252	41,5200	47,9034	51,6085	51,1257	46,9646	40,2848	32,3393	22,8376	21,5716
Daily Vap. Saturat. Factor:	0.0010	0.0018	0.0034	0.0048	0.0067	0.0083	0.0086	0.0077	0.0077	0.0066	0.0037	0.0011
Breather Vent Press. Setting Range(psi):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0041	0.0045	0.0055	0.0068	0.0083	0.0097	0.0105	0.0105	0.0105	0.0083	0.0066	0.0043
Surface Temperature (psia):	501.8297	507.8670	513.8325	518.7525	524.6394	527.2295	525.5241	520.0275	513.1273	506.9064	501.0170	501.0170
Surface Temperature (psia):	498.1888	494.0746	499.0107	503.4525	507.7767	511.7372	514.4490	509.9812	505.0426	512.6158	506.4099	506.4099
Surface Temperature (psia):	492.9446	505.4330	516.7233	524.2125	531.7283	540.0108	537.2652	530.0387	521.2121	516.6000	517.3600	517.3600
Daily Min. Liquid Surface Temp. (deg. R):	18,9000	19,6000	18,2000	19,9000	19,6000	20,6000	20,5000	20,4000	20,4000	20,4000	16,6000	17,3600
Daily Max. Liquid Surface Temp. (deg. R):												
Daily Average Liquid Surface Temp. Range (deg. R):	0.9833	0.9828	0.9811	0.9867	0.9844	0.9831	0.9840	0.9866	0.9893	0.9893	0.9893	0.9893
Vent Vap. Saturat. Factor:	0.0041	0.0045	0.0055	0.0068	0.0083	0.0097	0.0105	0.0105	0.0105	0.0083	0.0066	0.0043
Vent Vap. Saturation Factor:												
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):												

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Emissions Report - Detail Format

Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft):	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333	30.8333
Working Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0041	0.0045	0.0055	0.0068	0.0083	0.0097	0.0115	0.0133	0.0151	0.0170	0.0188	0.0206	0.0224	0.0242	0.0260	0.0278	0.0296	0.0314	0.0332
Net Throughput (gallons):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Annual Turnovers:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (gal):	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000	756,000.0000
Maximum Liquid Height (ft):	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000	20.0000
Tank Diameter (ft):	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000	80.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	23.7914	28.7779	43.8818	59.5651	84.4728	101.2929	111.5317	97.6598	69.2593	46.9446	26.5858	21.5976							

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Emissions Report - Detail Format Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Working Loss	Breathing Loss	Total Emissions
Jet Kerosene	0.00	715.36	715.36
Benzene	0.00	5.10	5.10
Ethylbenzene	0.00	14.87	14.87
Hexane (-n)	0.00	10.48	10.48
Toluene	0.00	47.63	47.63
Unidentified Components	0.00	607.08	607.08
Xylene (-m)	0.00	30.20	30.20

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Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: 1183002013
City: Searsport
State: Maine
Company: Irving Oil Corp
Type of Tank: Vertical Fixed Roof Tank
Description: 2000 Operations

Tank Dimensions

Shell Height (ft): 40.00
Diameter (ft): 110.00
Liquid Height (ft): 30.00
Avg. Liquid Height (ft): 20.00
Volume (gallons): 2,100,000.00
Turnovers: 10.37
Net Throughput (gal/yr): 21,766,526.00
Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium
Shell Condition: Good
Roof Color/Shade: Gray/Medium
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 3.75
Slope (ft/ft) (Cone Roof): 0.06

Breather Vent Settings

Vacuum Settings (psig): 0.00
Pressure Settings (psig): 0.00

Meteorological Data used in Emissions Calculations: Portland, Maine (Avg Atmospheric Pressure = 14.69 psia)

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Emissions Report - Detail Format

Liquid Contents of Storage Tank

MixtureComponent	Month	Daily Liquid Surf. Temperatures (deg F)				Vapor Pressures (psia)			Liquid Mass F-act.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Avg.	Min.	Max.					
Distillate fuel oil no. 2	Jan	39.52	33.27	45.76	48.46	0.0031	0.0040	130.0000	0.0100	0.0402	188.00	Option 1: VP40 = .0031 Option 2: A=12.101, B=8907 C=208.56
1,2,4-Trimethylbenzene						0.0085	0.0113	120.1900			120.19	Option 2: A=6.905, B=1211.033, C=220.79
Benzene						0.6430	0.5296	0.7762	78.1100	0.0000	0.0024	78.11
Ethylbenzene						0.0512	0.0401	0.0650	108.1700	0.0001	0.0031	108.17
Hexane (-n)						0.9536	0.9118	1.3045	88.1700	0.0005	0.0056	88.17
Toluene						0.1689	0.1358	0.2087	92.1300	0.0003	0.0252	92.13
Unidentified Components						0.0027	0.0024	0.0025	134.4854	0.0003	0.0243	134.48
Xylene (-m)						0.0424	0.0331	0.0338	108.1700	0.0029	0.0573	108.17
Distillate fuel oil no. 2	Feb	42.16	34.40	49.91	48.46	0.0036	0.0031	0.0046	130.0000	0.0100	0.0397	188.00
1,2,4-Trimethylbenzene						0.0097	0.0068	0.0135	120.1900		120.19	Option 2: A=12.101, B=8907 C=208.56
Benzene						0.5968	0.5487	0.8769	78.1100	0.0000	0.0023	78.11
Ethylbenzene						0.0567	0.0420	0.0757	108.1700	0.0001	0.0030	108.17
Hexane (-n)						1.1791	0.9427	1.4826	88.1700	0.0000	0.0005	88.17
Toluene						0.1848	0.1413	0.2293	92.1300	0.0003	0.0243	92.13
Unidentified Components						0.0030	0.0027	0.0029	134.3513	0.0003	0.0243	134.35
Xylene (-m)						0.0469	0.0346	0.0628	108.1700	0.0029	0.0558	108.17
Distillate fuel oil no. 2	Mar	48.20	39.34	57.05	48.46	0.0044	0.0031	0.0059	130.0000	0.0100	0.0417	188.00
1,2,4-Trimethylbenzene						0.0126	0.0085	0.0181	120.1900		120.19	Option 5: A=12.101, B=8907 C=208.56
Benzene						0.8340	0.6395	1.0756	78.1100	0.0000	0.0022	78.11
Ethylbenzene						0.0711	0.0509	0.0979	108.1700	0.0001	0.0031	108.17
Hexane (-n)						1.3954	1.0881	1.7713	88.1700	0.0000	0.0005	88.17
Toluene						0.2262	0.1679	0.3010	92.1300	0.0003	0.0241	92.13
Unidentified Components						0.0038	0.0033	0.0035	134.3847	0.0003	0.0243	134.38
Xylene (-m)						0.0590	0.0421	0.0814	108.1700	0.0029	0.0558	108.17
Distillate fuel oil no. 2	Apr	54.16	43.78	64.54	48.46	0.0053	0.0037	0.0075	130.0000	0.0100	0.0437	188.00
1,2,4-Trimethylbenzene						0.0161	0.0104	0.0245	120.1900		120.19	Option 5: A=12.101, B=8907 C=208.56
Benzene						0.9911	0.7317	1.3229	78.1100	0.0000	0.0021	78.11
Ethylbenzene						0.0883	0.0603	0.1268	88.1700	0.0001	0.0031	88.17
Hexane (-n)						1.6404	1.2443	2.1508	92.1300	0.0000	0.0004	92.13
Toluene						0.2146	0.1953	0.3797	134.4326	0.0003	0.0238	134.43
Unidentified Components						0.0046	0.0040	0.0168	108.1700	0.0029	0.0577	108.17
Xylene (-m)						0.0734	0.0489	0.1058				188.00
Distillate fuel oil no. 2	May	60.06	48.11	72.06	48.46	0.0065	0.0043	0.0086	130.0000	0.0100	0.0456	188.00
1,2,4-Trimethylbenzene						0.0205	0.0125	0.0327	120.1900		120.19	Option 5: A=12.101, B=8907 C=208.56
Benzene						1.1705	0.8318	1.6167	78.1100	0.0000	0.0021	78.11
Ethylbenzene						0.1088	0.0708	0.1632	108.1700	0.0001	0.0031	108.17
Hexane (-n)						1.9175	1.3919	2.5963	88.1700	0.0000	0.0004	88.17
Toluene						0.3310	0.2255	0.4358	92.1300	0.0003	0.0246	92.13
Unidentified Components						0.0056	0.0048	0.0650	134.4755	0.0003	0.0246	134.47
Xylene (-m)						0.0506	0.0588	0.1364	108.1700	0.0029	0.0565	108.17
Distillate fuel oil no. 2	Jun	64.97	52.07	77.87	48.46	0.0076	0.0050	0.0115	130.0000			188.00

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

1,2,4-Trimethylbenzene		0.0249	0.0148	0.0406	120.1900	0.0100	0.0472	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56										
Benzene		1.5383	0.9333	1.8792	78.1100	0.0000	0.0020	78.11	Option 2: A=6-905, B=1211.033, C=220.79											
Ethylbenzene		0.1288	0.0619	0.1970	105.1700	0.0001	0.0032	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		1.5506	1.5274	2.8503	88.1700	0.0000	0.0004	88.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.3847	0.2567	0.5631	92.1300	0.0003	0.0233	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0065	0.0056	0.0558	134.5075	0.0000	0.0232	139.60	Option 2: A=7.009, B=1462.286, C=215.11											
Xylene (-m)		0.1074	0.0680	0.1651	106.1700	0.0000	0.0229	106.17	Option 2: A=7.009, B=1462.286, C=215.11											
Distillate fuel oil no. 2	Jul	67.58	54.78	80.34	48.46	0.0083	0.0054	0.0124	130.0000	168.00	Option 5: A=12.101, B=8907									
1,2,4-Trimethylbenzene						0.0275	0.0165	0.0444	120.1900	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56								
Benzene		1.4350	1.0086	2.0008	78.1100	0.0000	0.0020	78.11	Option 2: A=6-905, B=1211.033, C=220.79											
Ethylbenzene		0.1405	0.0903	0.2131	106.1700	0.0001	0.0032	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		2.3214	1.6876	3.1718	86.1700	0.0000	0.0004	86.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.4160	0.2800	0.6042	92.1300	0.0000	0.0232	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0071	0.0061	0.0063	134.5233	0.0003	0.0635	139.60	Option 2: A=7.009, B=1462.286, C=215.11											
Xylene (-m)		0.1173	0.0750	0.1787	106.1700	0.0000	0.0594	106.17	Option 2: A=7.009, B=1462.286, C=215.11											
Distillate fuel oil no. 2	Aug	65.85	54.11	77.60	48.46	0.0078	0.0053	0.0114	130.0000	120.19	Option 5: A=12.101, B=8907	C=208.56								
1,2,4-Trimethylbenzene						0.0257	0.0161	0.0402	120.1900	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56								
Benzene		1.3707	0.9887	1.8860	78.1100	0.0000	0.0020	78.11	Option 5: A=12.101, B=8907											
Ethylbenzene		0.1327	0.0882	0.1953	106.1700	0.0001	0.0032	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		2.2237	1.6832	2.9106	86.1700	0.0000	0.0004	86.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.3852	0.2741	0.5887	92.1300	0.0003	0.0233	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0067	0.0058	0.0061	134.5130	0.0000	0.0644	139.60	Option 2: A=7.009, B=1462.286, C=215.11											
Xylene (-m)		0.1107	0.0733	0.1636	106.1700	0.0000	0.0592	106.17	Option 2: A=7.009, B=1462.286, C=215.11											
Distillate fuel oil no. 2	Sep	60.36	50.29	70.42	48.46	0.0066	0.0047	0.0091	130.0000	120.19	Option 5: A=12.101, B=8907	C=208.56								
1,2,4-Trimethylbenzene						0.0207	0.0137	0.0307	120.1900	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56								
Benzene		1.1795	0.8866	1.5486	78.1100	0.0000	0.0021	78.11	Option 2: A=6-905, B=1211.033, C=220.79											
Ethylbenzene		0.1099	0.0768	0.1546	106.1700	0.0001	0.0031	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		1.3813	1.4777	2.4935	86.1700	0.0000	0.0004	86.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.3338	0.2423	0.4532	92.1300	0.0003	0.0236	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0056	0.0049	0.0052	134.4774	0.0000	0.0636	139.60	Option 2: A=7.009, B=1462.286, C=215.11											
Xylene (-m)		0.0915	0.0687	0.1292	106.1700	0.0000	0.0585	106.17	Option 2: A=7.009, B=1462.286, C=215.11											
Distillate fuel oil no. 2	Oct	53.46	45.37	61.54	48.46	0.0052	0.0039	0.0068	130.0000	120.19	Option 5: A=12.101, B=8907	C=208.56								
1,2,4-Trimethylbenzene						0.0157	0.0111	0.0217	120.1900	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56								
Benzene		0.9713	0.7673	1.2187	78.1100	0.0000	0.0022	78.11	Option 2: A=6-905, B=1211.033, C=220.79											
Ethylbenzene		0.0861	0.0840	0.1145	106.1700	0.0001	0.0031	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		1.8097	1.2904	1.9915	86.1700	0.0000	0.0004	86.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.2684	0.2080	0.3463	92.1300	0.0003	0.0238	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0045	0.0040	0.0042	134.4272	0.0000	0.0694	139.60	Option 2: A=7.009, B=1462.286, C=215.11											
Xylene (-m)		0.0715	0.0550	0.0954	106.1700	0.0000	0.0576	106.17	Option 2: A=7.009, B=1462.286, C=215.11											
Distillate fuel oil no. 2	Nov	47.24	41.53	52.95	48.46	0.0042	0.0034	0.0061	130.0000	120.19	Option 5: A=12.101, B=8907	C=208.56								
1,2,4-Trimethylbenzene						0.0120	0.0094	0.0153	120.1900	120.19	Option 2: A=7.04383, B=1573.267.	C=208.56								
Benzene		0.8108	0.6836	0.9572	78.1100	0.0000	0.0022	78.11	Option 2: A=6-905, B=1211.033, C=220.79											
Ethylbenzene		0.0686	0.0554	0.0845	106.1700	0.0001	0.0031	106.17	Option 2: A=6-975, B=1424.255, C=213.21											
Hexane (-n)		1.3689	1.1561	1.8877	86.1700	0.0000	0.0005	86.17	Option 2: A=6-876, B=171.17, C=224.41											
Toluene		0.2191	0.1809	0.2840	92.1300	0.0003	0.0241	92.13	Option 2: A=6-954, B=1344.8, C=219.48											
Unidentified Components		0.0036	0.0033	0.0333	134.3765	0.0000	0.0721	139.60	Option 2: A=7.009, B=1462.286, C=215.11											

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Emissions Report - Detail Format

Liquid Contents of Storage Tank - (Continued)

Xylene (cm)	41.35	35.95	46.74	48.46	0.0569	0.0458	0.0702	106.1700	0.0029	0.0567	106.17	Option 2: A=7.009, B=-1462.286, C=215.11
Distillate fuel oil no. 2					0.0034	0.0031	0.0041	130.0000	0.0100	0.0394	188.00	Option 5: A=12.101, B=8607
1,2,4-Trimethylbenzene					0.0093	0.0073	0.0118	120.1900	0.0100	0.0394	120.19	Option 2: A=-0.04383, B=1573.267, C=208.56
Benzene					0.5760	0.7990	0.781100	78.1100	0.0000	0.0023	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Ethylbenzene					0.0550	0.0446	0.0674	106.1700	0.0001	0.0030	106.17	Option 2: A=3.975, B=424.255, C=215.21
Hexane (-n)					1.1522	0.9865	1.3404	88.1700	0.0000	0.0005	86.17	Option 2: A=6.876, B=-171.17, C=224.41
Toluene					0.1798	0.1492	0.2156	92.1300	0.0003	0.0243	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components					0.0030	0.0027	0.0028	134.3238	0.9966	0.8748	189.60	Option 2: A=7.009, B=-1462.286, C=215.11
Xylene (cm)					0.0455	0.0368	0.0558	106.1700	0.0029	0.0557	106.17	Option 2: A=7.009, B=-1462.286, C=215.11

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	23.5118	23.6898	45.2588	61.4045	87.1102	104.4982	115.0926	100.7536	71.4235	48.3931	27.4018	22.2688
Vape: Space Volume (cu ft):	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0501	0.0519	0.0599	0.0811	0.0925	0.0988	0.0974	0.0977	0.0977	0.0632	0.0452	0.0431
Vented Vapor Saturation Factor:	0.9865	0.9860	0.9851	0.9840	0.9915	0.9915	0.9912	0.9912	0.9912	0.9942	0.9953	0.9962
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025	201,945,5025
Tank Diameter (ft):	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000	110,0000
Vapor Space Outage (ft):	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500	21,2500
Tank Shell Height (ft):	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000	40,0000
Average Liquid Height (ft):	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000	20,0000
Roof Outage (ft):	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500
Roof Outage (Cone Roof)												
Roof Outage (ft):	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500	1,2500
Roof Height (ft):	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500	3,7500
Roof Slope (ft/ft):	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625	0.0625
Shell Radius (ft):	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000	55,0000
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000	130,0000
Vapor Pressure at Daily Average Liquid												
Surface Temperature (°cdeg):	0.0031	0.0035	0.0044	0.0063	0.0085	0.0107	0.0130	0.0153	0.0176	0.0200	0.0224	0.0242
Daily Avg. Liquid Surface Temp. (deg. R):	499,1888	501,8297	507,8670	513,8325	519,7525	524,6394	527,2285	525,5241	520,0275	513,1273	506,9064	501,0170
Daily Average Ambient Temp. (deg. F):	20,8500	23,3000	32,8500	43,2000	53,3000	62,4000	68,5500	67,2500	59,1000	48,5000	38,7000	26,4500
Ideal Gas Constant R												
(psiic cuft) (lb-mol-deg R):	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731	10,731
Liquid Bulk Temperature (deg. R):	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292	508,1292
Tank Paint Solar Absorpance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Tank Paint Solar Absorpance (Roof):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft day):	587,1021	888,0387	1,221,4895	1,482,4381	1,767,1939	1,931,5398	1,909,9854	1,898,9854	1,883,3212	927,0629	571,7205	478,7604
Vapor Space Expansion Factor												
Vapor Pressure at Daily Average Liquid	0.0501	0.0519	0.0598	0.0811	0.0925	0.0988	0.1074	0.0988	0.0777	0.0632	0.0452	0.0431
Surface Temperature (psia):	24,9768	31,0203	35,4252	41,5200	47,9034	51,1257	46,9646	40,2648	32,3383	22,8376	21,5716	20,0017
Vapor Pressure at Daily Minimum Liquid	0.0031	0.0031	0.0031	0.0037	0.0043	0.0050	0.0054	0.0053	0.0047	0.0039	0.0034	0.0031
Surface Temperature (psia):	0.0040	0.0046	0.0059	0.0075	0.0096	0.0115	0.0124	0.0114	0.0091	0.0068	0.0051	0.0041
Vapor Pressure at Daily Maximum Liquid												
Surface Temperature (psia):	501,8297	507,8670	513,8325	519,7525	524,6394	527,2285	525,5241	520,0275	513,1273	506,9064	501,0170	501,0170
Daily Avg. Liquid Surface Temp. (deg. R):	499,1888	494,0746	498,0107	503,4525	507,7767	514,4480	513,7828	509,9812	505,0425	501,1970	495,6241	495,6241
Daily Min. Liquid Surface Temp. (deg. R):	492,9446	506,5847	516,7233	524,2126	531,7283	537,2852	530,9837	521,2121	512,6158	506,4099	506,4099	506,4099
Daily Max. Liquid Surface Temp. (deg. R):	505,4530	518,9000	19,6900	18,2000	19,8000	20,6000	20,3000	20,4000	20,4000	16,6900	17,3500	
Ventted Vapor Saturation Factor	0.9985	0.9951	0.9940	0.9927	0.9915	0.9908	0.9902	0.9927	0.9942	0.9953	0.9962	
Ventted Vapor Saturation Factor	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0063	0.0078	0.0066	0.0042	0.0034	
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):												

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)- (Continued)

Vapor Space Outage (ft ³):	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500
Working Losses (lb):	23.4656	22.7029	28.3414	9.2463	59.5879	14.3072	49.5138	60.2184	11.2026	31.7198	27.8565
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0031	0.0035	0.0044	0.0053	0.0065	0.0076	0.0083	0.0078	0.0066	0.0052	0.0042
Net Throughput (gal/mo.):	2,445,540.000	2,081,153.000	2,103,836.000	559,925.0000	2,981,912.000	606,239.0000	1,980,163.0000	2,479,740.0000	551,821.0000	1,986,601.0000	2,137,711.0000
Annual Turnovers:	0	0	0	0	0	0	0	0	0	0	0
Turnover Factor:	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650	10.3650
Maximum Liquid Volume (gal):	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000	2,100,000.000
Maximum Liquid Height (ft):	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000	30.0000
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	46.9774	52.3728	73.5770	70.6509	146.6861	118.8054	164.8055	160.9780	82.6261	80.1041	55.2532

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January , February , March , April , May , June , July , August , September , October , November , December

Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	338.74	736.77	1,095.51
1,2,4-Trimethylbenzene	15.91	33.28	49.19
Benzene	0.77	1.55	2.32
Ethylbenzene	1.12	2.31	3.43
Hexane (-n)	0.16	0.32	0.48
Toluene	8.53	17.42	25.94
Unidentified Components	311.45	638.95	950.41
Xylene (-m)	20.80	42.94	63.74

APPENDIX C

2000

**AIR EMISSION SUMMARY TABLES,
ANNUAL USAGE OF HAZARDOUS AIR POLLUTANT CHEMICALS,
AND MAXIMUM AMOUNT OF HAZARDOUS AIR
POLLUTANT CHEMICAL CALCULATIONS AND
STATE EMISSION REPORT FORMS**

Irving Oil Terminals, Inc.
2000 Information for Emission Report Form for Hazardous Air Pollutants
(all data is in pounds)

Chemicals	Annual Usage	Maximum Amount On-Site	Fugitive Emissions from Tanks			Fugitive Emissions From Loading Operations	Fugitive Emissions From Equipment Leaks	Fugitive Emissions From ballasting operations	Total Fugitive Emissions
Benzene	8214506	1950972	216	45	2	0	0	0	264
Ethylbenzene	6491397	1603965	44	8	2	0	0	0	54
n-Hexane	4364379	1087749	199	43	1	0	0	0	244
Cumene	2280064	540960	3	1	1	0	0	0	4
Methyl tert-butyl ether (MTBE)	54721540	12983040	3799	810	16	7	0	0	4632
Toluene	32147552	7693742	370	68	9	1	0	0	449
Xylene (-o)	197	29	0	0	0	0	0	0	0
Xylene (mixed isomers)	33764843	8199026	343	43	10	1	0	0	398

Irving Oil Corp., Searsport Maine
2000 Annual Usage of Fuels that Contain Hazardous Air Pollutants

	Tank Number												Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Contents	Gasoline	Jet/Aerosol	Gasoline	No. 6	None*	Gasoline	No. 2	No. 2	Diesel	No. 2	None*	Diesel	Totals	
Usage (gallons)	59795827	5215221	5908291	49943405	0	1226745	5036280	21056520	17783869	10359056	0	21765526	220648272	
Usage (lbs.)	33455631	36534547	4988430	394552900	0	71269772	57057588	35876527	149497742	126265470	73549298	0	154542335	148389729
Chemicals													Totals (lbs)	
Benzene	6027419	1461	897956	39	0	1292556	456	287	1196	1010	588	0	1226	
Cyclohexane	8036356	0	119727	0	0	171047	0	0	0	0	0	0	0	
Ethylbenzene	4637993	4795	698410	43	0	5977777	5706	3588	14950	12627	7355	0	15454	
Heptane (-n)	3548566	3653	498864	0	0	712698	57	36	149	126	74	0	135	
Isopropyl benzene	1674283	0	249432	0	0	356349	0	0	0	0	0	0	0	
Methyl-tert-butyl-ether (MTBE)	40132796	0	5986372	0	0	8552373	0	0	0	0	0	0	0	
Toluene	23439864	4795	3492050	122	0	4938884	17117	10763	44849	371880	22065	0	46363	
Xylylene (-o)	0	0	0	197	0	0	0	0	0	0	0	0	197	
Xylylene (-m)	23439964	113257	3492050	0	0	4938884	165467	104042	433543	366170	213293	0	443173	
													33764843	

* Tank 5 and Tank 12 did not receive throughput for 2000

Chemicals	Fuel Type				No. 6
	Kerosene	No. 2/Diesel	Gasoline	No. 6	
Benzene	0.00004	0.00008	0.018	0.000001	
Cyclohexane	0	0	0.0024	0	
Ethylbenzene	0.0013	0.0001	0.014	0.0000011	
Heptane (-n)	0.0001	0.000001	0.01	0	
Isopropyl benzene	0	0	0.005	0	
Methyl-tert-butyl-ether (MTBE)	0	0	0.12	0	
Toluene	0.0013	0.0003	0.07	0.0000031	
Xylylene (-o)	0	0	0.000005	0.0000005	
Xylylene (-m)	0.031	0.0029	0.07	0	
Total HAPs	0.00564	0.00309	0.3094	0.00000102	

Irving Oil Corp. - Searsport Maine
2000 Maximum Amount of Fuels that Contain Hazardous Air Pollutants

Contents Tank Capacity (gallons) Fuel Weight (lbs.)	Job/Exposure*	Gasoline	No. 5	Gasoline*	Tank Number										Total (lbs)					
					1	2	3	4	5	6	7	8	9	10	No. 2	Diesel	No. 2	Jet/Kerosene*	Diesel	Total (lbs)
Chemicals	2000 Maximum Amount of Individual HAP on Site (lbs.)															Crude Oil		5,50		
Benzene	740000	2038	330658	6	330658	45158	70460	0	0	0	0	0	0	0	0	119	119	119	119	119
Cyclohexane	96734	0	45158	0	45158	411600	40265	40265	40265	40265	40265	40265	40265	40265	40265	259461	259461	259461	259461	259461
Ethylenec	576540	66418	263424	6	263424	188160	188160	188160	188160	188160	188160	188160	188160	188160	188160	1403946	1403946	1403946	1403946	1403946
Heptane (e)	411600	5145	188160	0	188160	204000	40	40	40	40	40	40	40	40	40	1193	1193	1193	1193	1193
Isopropylbenzene	205000	0	94080	0	94080	147000	0	0	0	0	0	0	0	0	0	6383	6383	6383	6383	6383
Methyl-tert-Butyl-ether (MTBE)	493020	0	2257920	0	2257920	352000	0	0	0	0	0	0	0	0	0	1697749	1697749	1697749	1697749	1697749
Toluene	2481200	66818	1317120	18	1317120	205000	12077	12077	12077	12077	12077	12077	12077	12077	12077	6383	6383	6383	6383	6383
Xylene (e)	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	4473	4473	4473	4473	4473
Xylene (m)	2481200	15945	1317120	0	1317120	205000	116745	116745	116745	116745	116745	116745	116745	116745	116745	34951	34951	34951	34951	34951
																43239	43239	43239	43239	43239

* Tank 5 and Tank 12 did not receive throughput for 2000

Liquid Mass Fraction of Hazardous Air Pollutants in Fuels

Chemical	Kerosene	No. 2 Diesel	Gasoline	Fuel Type*		No. 6
				Fuel Type*	Fuel Type*	
Benzene	0.00004	0.00008	0.018	0.000001	0.000001	
Cyclohexane	0	0	0.0024	0	0	
Ethylenec	0.0013	0.0001	0.014	0.0000011	0.0000011	
Heptane (e)	0.0001	0.000001	0.01	0	0	
Isopropylbenzene	0	0	0.005	0	0	
Methyl-tert-Butyl-ether (MTBE)	0	0	0.12	0	0	
Toluene	0.0013	0.0003	0.07	0.0000031	0.0000031	
Xylene (e)	0	0	0.00005	0	0	
Xylene (m)	0.0031	0.0029	0.07	0	0	
Total HAPs	0.00394	0.00339	0.394	0.0000102	0.0000102	

Irving Oil Terminals, Inc.
2000 Air Emission Summary

Emission Source	Total VOC (lb)						Hazardous Air Pollutants (lb)					
	Gasoline	Jet/Kero	No. 6	No. 2/Diesel	Benzene	Ethylbenzene	n-Hexane	Cumene	Methyl tert-butyl ether (MTBE)	Toluene	Xylene (-o)	Xylene (m/x)
Tank 001.in	12,719.42		37.71			61.88	5.10	56.97	1.04	1,187.45	69.29	0.00
Tank 002	7,328.61			26.60		0.22	0.61	0.45	0.00	0.00	1.97	0.00
Tank 003						35.79	2.59	33.11	0.47	603.64	38.60	0.00
Tank 004						0.15	0.02	0.00	0.00	0.00	0.13	0.04
Tank 005.in	10,314.47		6.84			41.62	2.78	38.63	0.45	808.75	44.03	0.00
Tank 006.in	2,859.34					19.07	1.50	17.51	0.12	357.64	21.16	0.00
Tank 007-A	3,041.19					19.47	1.34	18.28	0.22	362.04	21.04	0.00
Tank 008-B	3,669.34					17.40	1.11	23.78	1.61	22.03	0.26	459.79
Tank 009						11.01					25.29	0.00
Tank 010						1,569.41	3.31	4.98	0.68	0.00	37.14	0.00
Tank 011						916.02	1.93	2.87	0.40	0.00	21.67	0.00
Tank 012						680.06	1.43	2.14	0.29	0.00	16.07	0.00
Tank 013						715.36	5.10	14.87	0.48	0.00	47.63	0.00
Tank Truck Loading Losses	8,510.68		195.29			1,095.51	2.32	3.43	0.48	0.00	25.94	0.00
Equipment Leak Emissions	130.86		33.86			377.95	45.24	8.34	42.73	0.58	809.74	68.44
Ballasting Operation Emissions	75.38		0.00			171.84	2.37	1.89	1.31	0.65	15.70	9.25
Totals:	48,649.29		989.06			77.08	4,862.55	264.11	54.12	243.71	3.80	4,631.92
												448.61
												0.06
												397.50

Total of Hazardous Air Pollutants: 6,043.83 lbs or 3.02 tons

Total of VOC Air Pollutants: 54,577.98 lbs or 27.29 tons

Total of VOC Air Pollutants: 0.00 1.47

Total of VOC Air Pollutants: 0.00 9.68

Facility Identification Form

Reporting
Year 2000

NEDSID FACILITY:

STREET ADDRESS

CITY COUNTY

STATE ZIP

CONTACT INFORMATION

CONTACT TELEPHONE

MAILING ADDRESS (IF DIFFERENT FROM ABOVE)

MAILING ADDRESS

CITY COUNTY

STATE ZIP

SIC1 SIC2 SIC3

SIC CODES:

DUN-BRADSTREET #: (9 DIGIT) TRI FACILITY ID #

ME. AIR LICENSE #: EPA FACILITY ID #:

LOCATION

UTM EASTING
UTM NORTHING

OR

LATITUDE:
LONGITUDE:

NUMBER OF EMPLOYEES: PRINCIPAL PRODUCT(S)

PARENT COMPANY: DUNS:

CERTIFICATION: I certify, under Maine Statute 38 MRSA sec. 585 A-C that I have personally examined and am familiar with this information, and that based on my information, the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

LAST NAME: Bell

FIRST NAME: Drake

Signature Drake Bell

DATE: 8/15/01

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 71-43-2

CHEMICAL NAME Benzene

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL

- | | | |
|---|---|--|
| <input type="checkbox"/> ONSITE | <input type="checkbox"/> AS A REACTANT | <input type="checkbox"/> AS A PROCESSING AID |
| <input checked="" type="checkbox"/> FOR SALE/DISTRIBUTION | <input type="checkbox"/> FORMULATION COMPONENT | <input type="checkbox"/> MANUFACTURING AID |
| <input type="checkbox"/> A BYPRODUCT | <input type="checkbox"/> ARTICLE COMPONENT | <input type="checkbox"/> OTHER USE |
| <input type="checkbox"/> AN IMPURITY | <input checked="" type="checkbox"/> REPACKAGING | |

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY: 8,214,506 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE: 1,950,972 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 2 lb A. B. C. D.ON SITE STACK OR POINT AIR EMISSIONS: 261 lb A. B. C. D.TRANSFERS TO POTW'S: A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 100-41-4

CHEMICAL NAME Ethyl Benzene

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL

- | | | |
|---|---|--|
| <input type="checkbox"/> ONSITE | <input type="checkbox"/> AS A REACTANT | <input type="checkbox"/> AS A PROCESSING AID |
| <input checked="" type="checkbox"/> FOR SALE/DISTRIBUTION | <input type="checkbox"/> FORMULATION COMPONENT | <input type="checkbox"/> MANUFACTURING AID |
| <input type="checkbox"/> A BYPRODUCT | <input type="checkbox"/> ARTICLE COMPONENT | <input type="checkbox"/> OTHER USE |
| <input type="checkbox"/> AN IMPURITY | <input checked="" type="checkbox"/> REPACKAGING | |

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY: 6,491,397 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE: 1,603,965 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 2 lb A. B. C. D.ON SITE STACK OR POINT AIR EMISSIONS: 52 lb A. B. C. D.TRANSFERS TO POTW'S: A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 110-54-3

CHEMICAL NAME Hexane (-n)

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL ONSITE AS A REACTANT AS A PROCESSING AI FOR SALE/DISTRIBUTION FORMULATION COMPONENT MANUFACTURING AID A BYPRODUCT ARTICLE COMPONENT OTHER USE AN IMPURITY REPACKAGING

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:

4,564,379 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

1,087,749 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 2 lb

 A. B. C. D.

ON SITE STACK OR POINT AIR EMISSIONS: 242 lb

 A. B. C. D.

TRANSFERS TO POTW'S:

 A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 98-82-8

CHEMICAL NAME Cumene

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL ONSITE AS A REACTANT AS A PROCESSING AID FOR SALE/DISTRIBUTION FORMULATION COMPONENT MANUFACTURING AID A BYPRODUCT ARTICLE COMPONENT OTHER USE AN IMPURITY REPACKAGING

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:

2,280,064 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

540,960 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 1 lb

 A. B. C. D.

ON SITE STACK OR POINT AIR EMISSIONS: 4 lb

 A. B. C. D.

TRANSFERS TO POTW'S:

 A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID:

FACILITY:

Check box if chemical includes combustion related emissions

CAS #: 1634-04-4**CHEMICAL NAME** Methyl-tert-butyl-ether TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL ONSITE AS A REACTANT AS A PROCESSING AID FOR SALE/DISTRIBUTION FORMULATION COMPONENT MANUFACTURING AID A BYPRODUCT ARTICLE COMPONENT OTHER USE AN IMPURITY REPACKAGING**HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:**

54,721,540 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

12,983,040 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 16 lb A. B. C. D.**ON SITE STACK OR POINT AIR EMISSIONS:** 4,616 lb A. B. C. D.**TRANSFERS TO POTW'S:** A. B. C. D.**FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL DEVICES EMPLOYED:** Yes No**IF YES, PLEASE DESCRIBE:**

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 108-88-3

CHEMICAL NAME Toluene

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL ONSITE AS A REACTANT AS A PROCESSING AID FOR SALE/DISTRIBUTION FORMULATION COMPONENT MANUFACTURING AID A BYPRODUCT ARTICLE COMPONENT OTHER USE AN IMPURITY REPACKAGING

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:

32,147,552 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

7,693,742 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 10 lb

 A. B. C. D.

ON SITE STACK OR POINT AIR EMISSIONS: 439 lb

 A. B. C. D.

TRANSFERS TO POTW'S:

 A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 1330-20-7

CHEMICAL NAME

Xylene

 TRADE SECRET SANITIZED COPY PRODUCE IMPORT PROCESS THE CHEMICAL OTHERWISE USE THE CHEMICAL ONSITE AS A REACTANT AS A PROCESSING AID FOR SALE/DISTRIBUTION FORMULATION COMPONENT MANUFACTURING AID A BYPRODUCT ARTICLE COMPONENT OTHER USE AN IMPURITY REPACKAGING

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:

33,764,843 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

8,199,026 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 10 lb

 A. B. C. D.

ON SITE STACK OR POINT AIR EMISSIONS: 388 lb

 A. B. C. D.

TRANSFERS TO POTW'S:

 A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

Emissions Report

NEDSID

FACILITY

Check box if chemical includes combustion related emissions

CAS #: 95-47-6

CHEMICAL NAME Xylene (-o)...

 TRADE SECRET SANITIZED COPY

- | | | |
|---|--|--|
| <input type="checkbox"/> PRODUCE <input checked="" type="checkbox"/> IMPORT | <input checked="" type="checkbox"/> PROCESS THE CHEMICAL | <input checked="" type="checkbox"/> OTHERWISE USE THE CHEMICAL |
| <input type="checkbox"/> ONSITE | <input type="checkbox"/> AS A REACTANT | <input type="checkbox"/> AS A PROCESSING AID |
| <input checked="" type="checkbox"/> FOR SALE/DISTRIBUTION | <input type="checkbox"/> FORMULATION COMPONENT | <input type="checkbox"/> MANUFACTURING AID |
| <input type="checkbox"/> A BYPRODUCT | <input type="checkbox"/> ARTICLE COMPONENT | <input type="checkbox"/> OTHER USE |
| <input type="checkbox"/> AN IMPURITY | <input checked="" type="checkbox"/> REPACKAGING | |

HOW MUCH OF THE CHEMICAL IS USED ANNUALLY:

197 lb

WHAT IS THE MAXIMUM AMOUNT OF THE CHEMICAL ON SITE:

29 lb

Basis of Estimate

FUGITIVE OR NON-POINT AIR EMISSIONS: 0 lb

 A. B. C. D.

ON SITE STACK OR POINT AIR EMISSIONS: 0 lb

 A. B. C. D.

TRANSFERS TO POTW'S:

 A. B. C. D.FOR THIS CHEMICAL ARE THERE ANY POLLUTION CONTROL
DEVICES EMPLOYED: Yes No

IF YES, PLEASE DESCRIBE:

Internal Floating Roofs
Vapor Recovery Unit with Carbon Absorption

APPENDIX D
MDEP COVER LETTER



ENGINEERS • SURVEYORS

465 So. Main Street
P.O. Box 639 Brewer, ME 04412
Tel: 207-989-4824 FAX 207-989-4881
Email: brewer@ces-maine.com

29 Dublin Street
P.O. Box 587 Machias, ME 04654
Tel: 207-255-3270 FAX 207-255-8367
Email: machias@ces-maine.com

67 Presque Isle Street
P.O. Box 506 Fort Fairfield, ME 04742
Tel: 207-472-3008 FAX 207-472-3015
Email: cesff@bangornews.infi.net

August 16, 2001

Richard Greves
Bureau of Air Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Irving Oil Hazardous Air Pollutant Report Forms

Dear Mr. Greves:

On behalf of Irving Oil Terminals, Inc., CES is submitting the State Hazardous Air Pollutant Emissions Reports Forms. The information contained on the forms has been reported in accordance with Maine State Law MRSA 38 § 585-C and DEP Regulations 06-096 CMR Chapter 137. The Emission information has been complied for the full calendar year 2000.

If you have any questions or concerns please contact us at 207-989-4824.

Sincerely,
CES, Inc.



Denis St. Peter, P.E.
Project Engineer

DSP/gdr
Enc.